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Child-Centered Play Therapy's Impact on Externalized Behaviors of Children who Have
Experienced Trauma: A Single-Case Research Design

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in Counselor Education

by

Timothy "T.J." Schoonover
Northern Illinois University
Bachelor of Arts in Sociology, 2014
Northern Illinois University
Master of Science in Clinical Mental Health Counseling, 2017

July 2021
University of Arkansas

This dissertation is approved for recommendations to the Graduate Council.

Kristi Perryman, Ph.D.
Dissertation Director

Anthony Vajda, Ph.D.
Committee Member

Samantha Robinson, Ph.D.
Committee Member

Christine Holyfield, Ph.D.
Committee Member

Abstract

Adverse childhood experiences (ACEs) are defined as exposure to emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, loss of a parent, domestic violence, family member with addiction, family member with depression or mental illness, and family member incarcerated (Felitti et al., 1998). ACEs have been studied for many years and have shown to have long term negative health and social-emotional outcomes and costs the world over \$1 trillion a year (Bellis et al., 2019; Felitti et al., 1998; Hughes et al., 2017). Due to the emotional, physical, and dollar amount cost to not addressing the impact of ACEs early, the Center for Disease Control and Prevention (CDC) (2020) recommends early victim-focused treatment if someone was exposed to an ACE. Child-centered play therapy (CCPT) has been shown to be effective with multiple populations and symptoms, but there has been a lack of research on it with children who have experienced trauma (Gutermann et al., 2016; Haas, 2017; Humble et al., 2019; Kram, 2019). This dissertation aimed to assess if CCPT could be an effective intervention for children who have been exposed to ACEs.

The purpose of this dissertation was to explore the effectiveness of using CCPT on externalized behaviors in the classroom with elementary students who have been exposed to ACEs that are attending a school for students who have experienced trauma. This dissertation utilized an A-B with maintenance single-case research design (SCRD) to examine the impact of CCPT on externalized behavior. Participants externalized behaviors were measured via the Attention-Deficit/Hyperactivity Disorder subscale on the Direct Observation Form. Participants were in the study for 13 – 16 weeks, which consisted of the three phases: phase A (no intervention), phase B (16 CCPT sessions), and maintenance phase (no intervention). After completing the visual analysis of data recommended for SCRDS, the findings showed that 16

sessions of CCPT was effective in decreasing externalized behaviors in the classroom for children who have experienced trauma. The results of this dissertation support that CCPT could be an effective intervention for children who have been exposed to ACEs.

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Acknowledgements

It is difficult to put into words how meaningful the amount of support I have received from family and friends during this process. I want to thank all the people that have helped me through this dissertation and academic journey I have been on. My friends and family have never wavered in their support of my dream and have always offered positivity when I needed it. I have had tremendous support from my committee, faculty, and classmates throughout this process.

First, I want to thank my entire committee for dealing with my anxiety during this dissertation. I had so many worries that this would not happen because of things outside of my control and you all were always positive, calming, and supportive. I want to thank Dr. Kristi Perryman, my dissertation chair, for her mentorship, support, guidance, and positivity throughout this process. You never let me lose sight of what this dissertation was truly about, helping kids. You truly helped me find my way of being. To Dr. Vajda, thank you for always being a sounding board about the stress of this and for always being honest about your expectations and experiences with your dissertation process, even if it terrified me at times. To Dr. Holyfield, thank you so much for being so prompt to respond to my millions of questions. If you would not have been on this committee, I am 100% confident that this dissertation would not have turned out at all like it did. To Dr. Robinson thank you for always being accepting, flexible, and caring throughout this process. You bring in so many different ideas that I never considered when it comes to research and that is greatly appreciated.

I want to give a special thanks to the CNED faculty and all their support over the last three years. I appreciate that everyone brings different expertise to the table and I am thankful I got to learn from you all. I also want to thank all my classmates for helping me get through the last three years. I could not have survived this PhD program with you all.

I also want to say thank you to the staff at the school this dissertation took place. I want to say thank you to Ellen Bennett for being such a great supervisor, teacher, and friend. I also want to thank Jake Gibbs for allowing me to come into the school and work with the kids and staff. I am so grateful for the opportunity to work with the school and learn from the staff. To all the teachers, paraprofessionals, administrators, interns, and everyone who had played a role in the school. You all are amazing and are changing lives every day. I want to say special thank you to all the children at the school. I will never forget my time in the school and time we spent together.

My friends and family have sat through many of my long ramblings about the counseling profession over the years. I know it can be boring and I am so appreciative that you all sat through it and at least appeared interested. I want to thank my mom for never doubting my ability to do anything I set my mind too. You have always believed in me, even when I had no obvious direction in life. You knew I would find a way. I want to thank my grandma for always reminding me that I am special. Anytime that I needed to feel better, I know that you would be there to say just the right things. I want to thank my dad for always asking questions, being interested, and providing me with moral support throughout this journey. I would also like to thank my mother and father-in-law for always supporting me and being interested in my work. Lastly, I want to give a special shout out to the Straight Edge and my two friends, Davis and Tyler for ensuring I maintain the Straight Edge during this stressful process.

Dedication

I want to dedicate this dissertation to my beautiful partner, Rita, our dog Winnie, and our future child. Rita, I literally would have never been able to do this without you. I still cannot believe you agreed to marry me and then agreed to move to Arkansas away from all our family and friends. I consider myself the luckiest person alive. Your support, love, caring, and encouragement during this process cannot be measured. You made sure that I was taking care of myself mentally and physically. I love you with all my heart and I cannot imagine my life without you. I also want to dedicate this dissertation to our dog Winnie. She has been the best writing partner I have ever had. She loves me unconditionally and always knows when I need a break from working. Lastly, I want to dedicate this dissertation to our future child. You are only the size of a blueberry right now, but I already love you more than you will ever know and I cannot wait to meet you.

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Chapter 1: Introduction

Need for the Study

Adverse childhood experiences (ACEs) have been studied for over 20 years and include exposure to or experiencing emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, loss of parent, domestic violence, family member with addiction, family member with depression or mental illness, and family member incarcerated happening before someone turns 18 years old (Felitti et al., 1998). The Center for Disease Control and Prevention (CDC) (2016) has been active in researching ACEs in the United States and has found that 26% of adults were exposed to at least one ACE, 16% two, 9.5% three, and 12.5% four or more. The more ACEs someone has correlates with an increase in negative health outcomes in childhood and adulthood. Adults who have been exposed to multiple ACEs have higher rates of heart disease, depression, anxiety, diabetes, stroke, suicide attempts, and substance abuse problems (CDC, 2016; Hughes et al., 2017). In addition to these negative health outcomes, adults who were exposed to multiple ACEs have difficulty maintaining healthy relationships and risk passing these traits to their children (Van der Kolk, 2014).

Negative symptoms from ACEs do not occur exclusively in adulthood, children can also have negative health and social-emotional outcomes. Children who have been exposed to ACEs have an increase in aggression, disruptive behaviors, externalized behaviors, and impulsivity (Bethell et al., 2014; Blodgett & Lanigan, 2018; Clarkson Freeman, 2014; Fuller-Thomson & Lewis, 2015; Gruhn & Compas, 2020; Hughes et al., 2017; Jimenez et al., 2016; Ray et al., 2020; Van der Kolk, 2014). Furthermore, they have delays in social-emotional skills and cognitive development and have increased risk of poor academic performance (Ray et al., 2020). Lastly, they have an increase for risky behaviors, drug and alcohol use, unsafe sex, etc., as they get older

(Hughes et al., 2017). These negative health outcomes do not only lead to a physical and mental health cost, but it also comes with a monetary cost. Bellis et al. (2019) estimated that people who have been exposed to ACEs cost the United States \$748 billion and Europe \$581 billion a year. The children in the state where the study is taking place have higher rates of ACEs than the national United State average (Arkansas Center for Health Improvement, 2019). One in seven children in this state were exposed to three or more ACEs, compared to the national average of one out of 10 (Arkansas Department of Human Services, n.d.).

With long-term consequences of ACEs, it is imperative that there is an early treatment option to help children who have been exposed to trauma. Multiple studies and organizations, including the CDC (2020) recommended that children who have been exposed to ACEs get mental health treatment, with a victim-focused treatment (Finkelhor, 2018; Letich, 2017; Melville, 2017; Ray et al., 2020). Child-centered play therapy (CCPT) could be an effective, evidence-based intervention to address the symptoms of children who have experienced trauma. CCPT is a relationship-based form of play therapy that creates a safe space for children to play out their emotions, learn responsibility, and have a positive relationship with an adult (Landreth, 2012; Ray, 2011). Due to CCPT being non-directive it allows the child to work through trauma at their own pace, and not feel pressured to process it if they are not ready. It is an evidence-based theoretical approach that has an abundance of research completed over the last 70 years that has been shown to be effective in schools and clinical settings, and multiple populations (Lin & Bratton, 2015; Post et al., 2019; Ray et al., 2015).

There has been a plethora of research on the effectiveness of CCPT on trauma related behaviors (disruptive behaviors, externalized behaviors, impulsivity) (Lin & Bratton, 2015; Post et al., 2019; Ray et al., 2015) but a lack of research on how it impacts the symptoms of children

who have experienced trauma (Gutermann et al., 2016; Haas, 2017; Humble et al., 2019; Kram, 2019; Parker et al., 2021). The CDC (2020) stated that early treatment is important with a focus on victim-based treatment. There needs to be an effective intervention to use with children who have experienced trauma. This dissertation utilized a single-case research design (SCRD) to look at the impact of CCPT on externalized behaviors of children who have been exposed to ACEs at a trauma-focused charter school in the southern United States.

Purpose of the Present Study

The purpose of this dissertation was to explore the effectiveness of using CCPT on externalized behaviors with elementary students who have been exposed to ACEs who were attending a school for students who have experienced trauma. These findings help support future implications of early, victim-focused interventions to assist children who have been exposed to ACEs to mitigate their potential long-term negative health outcomes. If play therapists know of effective interventions to use with children who have been exposed to, it can decrease the mental, physical, and monetary cost of their impacts.

Research Question

What is the impact of CCPT on externalized behaviors, Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms (disruptive behaviors, ability to stay on task, and impulsivity), in the classroom of K-2nd grade students who have been exposed to ACEs?

Operational Definitions

- *Adverse childhood experiences (ACEs)*: Adverse childhood experiences are categorized as emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, loss of parent, domestic violence, family member with addiction, family member with depression or mental illness, and family member incarcerated (Felitti et al., 1998).

- *Play therapy*: The Association for Play Therapy (APT) (2019a) defines play therapy as "the systematic use of a theoretical model to establish an interpersonal process wherein trained play therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve optimal growth and development" (n.p.). Play therapy has been developed with over 100 years of hypotheses, theories, and research (Johnson, 2016). There are multiple theories and approaches that can be used in play therapy, all with the goal of helping children work through their psychological issues with play.
- *Child-centered play therapy (CCPT)*: Child-centered play therapy is a client-focused approach that is developmentally appropriate for children to express themselves in their language (play) expanding on Roger's person-centered theory (Landreth, 2012; Ray, 2011).
- *Externalized behaviors*: Externalized behaviors will be defined as ADHD behaviors such as: disruptive behaviors, ability to stay on task, and impulsivity, which are all scored on the ADHD scale on the Direct Observation Form (DOF). These behaviors have been identified in the past as behaviors that children who have experienced trauma could have (Clarkson Freeman, 2014; Ray et al., 2020).
- *Single-case research design (SCRD)*: is a rigorous form of quantitative research that focuses on an $n=1$ that is split up into phases (Ray, 2015). SCRD use repeated and continuous measurements to assess the impact of an intervention. SCRD establish a baseline before implementing an intervention, this is phase A or baseline phase. When an intervention is introduced, the study moves to the next phase, phase B. Once the intervention is removed, the study moves to the next phase, phase A again. During each

phase the same repeated and continuous assessments are completed. There are multiple designs that can be used for single-case research design, A-B, A-B-A, A-B-A-B, A-B-C-A, etc. (Ray, 2015). The most used design in behavioral/counseling research is either A-B or A-B-A to assess the impact of the intervention and potential carry over effect (Ray, 2015). Even though SCRD focuses on one participant ($n=1$) there can be multiple participants in a study. The difference is the participants are only compared to themselves; therefore a baseline needs to be established so that the results can be compared against this (Ray, 2015).

Brief Overview of Dissertation

This dissertation is comprised of five chapters. The first chapter includes an introduction, a rationale for the study, the purpose of the present study, the research question, and a list of definitions. The second chapter is a literature review. The chapter focuses on the history of ACEs, play therapy, and CCPT. The third chapter is focuses on the methodology of the current dissertation. It discusses research design (SCRD), recruitment methods, assessments used (DOF, Child-Centered Play Therapy Research Integrity Checklist [CCPT-RIC], Trauma Symptom Checklist for Young Children – Screening Form [TSCYC-SF], and ACEs survey), structure of the SCRD, the data analysis that will be used, and limitations. The fourth chapter discusses the results of the study utilizing a visual analysis of data. The fifth chapter discusses the results, as well as limitations and implications for future research.

Chapter II: Review of the Literature

Adverse Childhood Experiences

The understanding of how trauma impacts our lives has grown in the last 25 years.

Trauma is defined by the American Psychological Association (APA) as “an emotional response to a terrible event like an accident, rape or natural disaster” (n.d., para. 1). Traumatic events can range from an accident, assault, military combat, or natural disaster (National Alliance on Mental Illness [NAMI], 2017). These experiences can happen to adults, and children, but the National Child Traumatic Stress Network (NCTSN) (n.d.) identified specific traumatic experiences that children can face such as, bullying, community violence, disasters, intimate partner violence, medical trauma, physical abuse, refugee trauma, sexual abuse, terrorism and violence, and grief. Adults and children who experienced trauma have an increased chance of negative outcomes (APA, n.d.; NAMI, 2017) but children who are exposed to traumatic experience have a heightened chance for negative mental and physical health outcomes throughout their entire life (NCTSN, n.d.).

That is why Felitti et al. (1998) completed the first study on the impact of childhood trauma. A 10-questions survey on adverse childhood experiences (ACEs) was created. The ACEs survey covers topics such as: emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, loss of parent, domestic violence, family member with addiction, family member with depression or mental illness, and family member incarcerated (Felitti et al., 1998). The respondent answers yes or no to questions asking whether they have experienced any of those scenarios. In the last 10 years the ACEs has been expanded by researchers to include additional questions regarding incarcerated parents, expanded drug and alcohol use questions, family support, food insecurity, expanded emotional abuse, and expanded physical abuse (Ray et

al., 2020). The ACE has also been adapted to use with children by changing the tense of the survey from past to present, adding new questions, adding Likert scale questions, and having parents complete it (Ray et al., 2020).

In the original study Felitti et al. (1998) focused on the ten questions, in three areas. The three areas were: abuse, household changes, and neglect. The questions that focused on abuse were emotional, physical, and sexual abuse (Felitti et al., 1998). The questions in the household changes area focused on mother treated violently, substance abuse in the household, mental illness in the household, parental separation or divorce, and incarcerated household member (Felitti et al., 1998). Lastly, the questions in the neglect area were focused on emotional and physical neglect (Felitti et al., 1998). There was a total of 17,337 male and female adult respondents in this data from the CDC (2020). See Table 1 for a breakdown of each ACE category and percent of respondents who experienced them.

Table 1. Adverse Childhood Experiences Breakdown by Category

ACE	Women	Men	Total
Emotional Abuse	13.3%	7.6%	10.6%
Physical Abuse	27%	29.9%	28.3%
Sexual Abuse	24.7%	16%	20.7%
Mother Treated Violently	13.7%	11.5%	12.7%
Substance Abuse	29.5%	23.8%	26.9%
Mental Illness	23.3%	14.8%	19.4%
Parental Separation or Divorce	24.5%	21.8%	23.3%
Incarcerated Member of Household	5.2%	4.1%	4.7%
Emotional Neglect	16.7%	12.4%	14.8%
Physical Neglect	9.2%	10.7%	9.9%

CDC, 2020

The CDC (2016) has continued the research on ACEs and has found that 26% of adults have been exposed to at least one ACE, 16% have two, 9.5% have three, and 12.5% have four or more. The increase in the number of ACEs a person is exposed to has a positive correlation with

negative health outcomes (CDC, 2020). Being exposed to an ACE can lead to an increase in the following areas: mental health (anxiety, depression, suicide, posttraumatic stress disorder), infectious disease (sexually transmitted diseases), chronic diseases (cancer, diabetes), and risky behaviors (alcohol and drug use) (CDC, 2020; Hughes et al., 2017).

These results focused on adults, but there have been additional studies on the number of ACEs experienced by children. The National Survey of Children's Health (NSCH) includes the ACEs in its yearly assessment. It is completed by the Maternal and Child Health Bureau (MCHB) (2019) and the most recent data shows the prevalence of ACEs among children, as reported by their parents. This data was gathered in 2017 – 2018 with a total of 52,129 respondents. The NSCH did adjust some of the ACEs questions and do not use all the ones from Felitti et al.'s study (1998). The areas focused on are parent/guardian divorce, parent/guardian died, parent/guardian served time in jail, saw or heard parents or adults slap, hit, kick, punch one another in the home, was a victim of violence or witnessed violence in his or her neighborhood, lived with anyone who was mentally ill, lived with anyone who had a problem with drugs or alcohol, and treated or judged unfairly because of their race (MCHB, 2019). There were many interesting results from the most recent data. First, one in three children were exposed to at least one ACE and 14.1% had two or more ACEs (MCHB, 2019). Second, the three highest ACEs respondents were exposed to were parent/guardian divorce (24.3%), lived with someone with an alcohol/drug problem (8%), and parent/guardian served time in jail (7.4%) (MCHB, 2019). Third, children in households who were 100% below the federal poverty level had higher rates of exposure to two or more ACEs compared to children who were at 400% above the poverty level (MCHB, 2019). Lastly, 21.3% Black children were exposed to two or more ACEs and 12.9% of White children were exposed two or more ACEs (MCHB, 2019). Minoritized populations have

higher rates of experiencing ACEs based on outside societal oppressive factors that they cannot control, and this will be covered later in the chapter (Patterson et al., 2018; Post et al., 2019).

One limitation of these results is that they are reported by parents and guardians, who might not respond as honestly when it comes to types of abuse experienced by children. See Table 2 for a breakdown of each ACE category.

Table 2. Prevalence of Adverse Childhood Experiences Among Children

Adverse Childhood Experience	Percent Experienced
Parent/Guardian divorced or separated	23.4%
Lived with anyone with alcohol/drug problems	8%
Parent/guardian served time in jail	7.4%
Lived with anyone who is mentally ill	7.3%
Saw or heard parental violence	5.3%
Victim of or witnessed neighborhood violence	4%
Treated/judged unfairly due to race or ethnicity	3.8%
Parent/guardian died	3.3%
MCHB, 2019	

This data focuses on children throughout the United States. The state where this dissertation takes place has consistently had higher statistics of children being exposed to ACEs compared to other states (America's Health Ranking, 2020). The most recent data from 2019 shows that this state is ranked 47th in the United States for children who have had two or more ACEs with 27.1%, and the national average being 20.5% (America's Health Ranking, 2020). See Table 3 for more information.

Table 3. Adverse Childhood Experiences in Arkansas vs. United States

Adverse Childhood Experience	Percent in Arkansas	Percent in United States
Economic Hardship	28.8%	24.3%
Parent or guardian divorce/separation	31.5%	24%

Table 3. Adverse Childhood Experiences in Arkansas vs, United States Cont.

Adverse Childhood Experience	Percent in Arkansas	Percent in United States
Parent or guardian death	5.8%	3.5%
Parent or guardian time in jail	13.1%	7.7%
Domestic violence	8.9%	5.3%
Neighborhood violence	5%	3.8%
Mental illness	10.6%	7.4%
Substance misuse	11.7%	8.5%
Discrimination	2.7%	3.7%

America's Health Rankings, 2020

This data is important to understand the pervasiveness of ACEs in the United States. Looking at this general data is helpful in identifying specific areas and populations that are experiencing ACEs at higher rates. As previously stated, minoritized populations will be exposed to ACEs at higher rates than non-minoritized peers (MCHB, 2019). This will be explored further in the next section to better understand the reasons for such vast differences.

Adverse Childhood Experiences and Minoritized Populations

When discussing ACEs, it is pivotal to consider the higher rates minoritized populations have of exposure to and experiencing traumatic events. Minoritized populations have higher rates of living in poverty, which can increase their exposure to violence, abuse, neglect, and household dysfunction than children who are white (Patterson et al., 2018; Post et al., 2019). With the changing demographics of this country, it is important to recognize that there will be an increase of working with minoritized children who have been exposed to multiple ACEs. Minoritized children who are exposed to more ACEs, have a harder time adapting due to outside oppressive factors (Post et al., 2019). It is crucial for counselors to be aware of these outside oppressive factors and work to create a culturally responsive space for their clients.

Merrick et al. (2018) looked at the results from the 2011-2014 Behavioral Risk Factor Surveillance System (BRFSS) which is an annual telephone survey for adults. The survey includes the ACEs survey for adults to complete. Merrick et al. (2018) used the data from 2011-2014 that had 214,157 respondents from 23 states across the United States. Prevalence of ACEs across gender, race, sexual orientation, income level, education, and employment status was reviewed. What they found was that minoritized groups had a higher average number of ACEs (Merrick et al., 2018). See Table 4 for a break down along gender, race, and sexual orientation.

Table 4. Adverse Childhood Experiences Breakdown by Demographics

	Emotional Abuse	Physical Abuse	Sexual Abuse	IPV	SA	MI	Separation/Divorce	Incarcerated	ACE Score
Gender									
Male	35%	18%	7%	17%	26%	14%	27%	9%	1.46
Female	34%	17%	16%	18%	29%	19%	28%	7%	1.68
Race									
White	35%	17%	11%	16%	28%	18%	26%	7%	1.52
Black	28%	14%	13%	20%	26%	11%	43%	13%	1.69
Hispanic	36%	26%	12%	24%	28%	13%	30%	10%	1.80
Multiracial	49%	27%	19%	26%	41%	27%	39%	16%	2.52
Other	30%	15%	8%	18%	17%	11%	19%	9%	1.51
Sexual Orientation									
Straight	34%	17%	12%	16%	26%	19%	27%	7%	1.60
Gay/Lesbian	47%	31%	23%	27%	37%	33%	36%	13%	2.19
Bisexual	59%	35%	35%	30%	46%	17%	46%	19%	3.14
Other	35.49	24%	11%	21%	23%	40%	22%	7%	1.55

Note: ACE categories (emotional, physical abuse, sexual abuse, intimate partner violence [IPV], substance abuse (SA), mental illness (MI), separation/divorce, or incarcerated) are listed in % and ACE score is their average number of ACEs experienced.

Merrick et al., 2018

There are also discrepancies between minoritized children and non-minoritized children who have been exposed to ACEs. Sacks and Murphy (2018) looked at the NSCH results for 2016 and examined the ACEs data and focused on minoritized vs. non-minoritized populations based on race. Their findings indicated that regardless of their race, children who experienced a

separation/divorce or economic hardship was the most common ACE (Sacks & Murphy, 2018). Additionally, Black children were more likely to experience an incarcerated guardian or death of a guardian compared to other races (Sacks & Murphy, 2018). Lastly, Hispanic children were more likely to live with a parent/guardian who experiences substance abuse issues and parental/guardian incarceration than other races (Sacks & Murphy, 2018). See Table 5 for more details.

Table 5. Adverse Childhood Experiences of Children in the United States by Race

Race	Food/ Housing Insecurity	Divorce /Separation	Guardian/ Parent Death	Guardian/ Parent Incarcerated	Witness DV	Victim of Violence	Mental Illness	Alcohol/ Drugs
White	22%	23%	3%	7%	5%	3%	9%	10%
Black	37%	35%	7%	16%	9%	7%	6%	8%
Asian	14%	7%	2%	1%	2%	2%	2%	1%
Hispanic	29%	28%	3%	8%	6%	4%	6%	9%
Other	31%	27%	4%	11%	7%	6%	11%	12%
All	25%	25%	3%	8%	6%	4%	8%	9%

Sacks & Murphy, 2018

There has been an increase in research on children exposed to ACEs and their negative impacts. The inclusion of the ACEs in the NSCH shows the importance of understanding the scope of the problem. Understanding the frequency of ACEs happening is the first step, after that is understanding the impact of them and then how to treat the symptoms. This is especially crucial for working with minoritized children since they are exposed to ACEs more frequently and highlights the need for culturally responsive counselors.

Impact of Trauma

Symptoms of Children Exposed to Adverse Childhood Experiences

Children who have been exposed to ACEs can display a wide range of symptoms as a result. The more ACEs a child is exposed to, the more likely they have externalized behaviors (Clarkson Freeman, 2014). These can come out as aggressive and disruptive behaviors in the classroom and at home, similar to ADHD symptoms (Fuller-Thomson & Lewis, 2015; Jimenez et al., 2017). Hunt et al. (2017) state that if these behaviors are not addressed, they can worsen and lead to issues in middle school. Dube et al. (2006) and Fox et al. (2015) both found that if early treatment is not done, risky behaviors will increase during adolescence for children who have been exposed to.

In addition to these externalized behaviors, children can have learning difficulties, delayed cognitive development, and impaired attachment (Clarkson Freeman, 2014). Jimenez et al. (2016) found that children who have been exposed to ACEs before kindergarten have poorer academic performance than children who had fewer or no ACEs. Furthermore, having more ACEs can increase the likelihood of repeating a grade, poor attendance, and overall lower school engagement (Bethell et al., 2014; Blodgett & Lanigan, 2018). Students who have been exposed to ACEs have more academic and social emotional issues than their classmates who have not been exposed to.

Gruhn and Compas (2020) completed a meta-analysis of studies that focused on the impact of early childhood maltreatment on a child's coping and emotional regulation. They looked at 35 studies with a total of 11,344 participants combined from the studies. The results showed that early childhood maltreatment significantly decreased emotional regulation ($r=-.24$, $p<.001$) and increased emotional dysregulation ($r=.28$, $p<.001$). Additionally, they found

children who experienced early maltreatment had increased avoidance ($r=.25, p<.001$), emotional suppression ($r=.24, p<.001$), and decrease emotional expression ($r=.25, p<.001$) (Gruhn & Compas, 2020). They suggest taking these results to find early treatment options that focus on emotional regulation and coping (Gruhn & Compas, 2020).

Ray et al. (2020) completed a study on the impact of ACEs on children's social-emotional asset and childhood behavioral problems at school and home. There was a total of 58 participants from kindergarten to fifth grade at four title 1 elementary schools. The ages ranged from five to 12 years old, with 17 female and 41 male students. There was a total of 15 African American, 15 Hispanic, 25 White, one multiracial, and two unindicated participants (Ray et al., 2020). The Social Emotional Assets and Resilience Scales-Parent and Strengths and Difficulties Questionnaire were used to assess identify potential behavioral problems and social assets, and the ACEs-expanded was used to identify how many they were exposed too. The results showed that children who have been exposed to ACEs had less social-emotional assets and a higher number of behavioral problems. Furthermore, the results showed that an increase in ACEs exposed to, social assets decreased, and behavioral problems increased (Ray et al., 2020). Children who have been exposed to ACEs can have myriad of symptoms from externalized behaviors, academic issues, social emotional development, and behavioral problems, which if not addressed can lead to risky behaviors and negative health outcomes in adolescence and adulthood. The lack of understanding of the symptoms of trauma by therapists can also exaggerate these problems.

Diagnosing Trauma in Children

Children who been exposed to ACEs can meet multiple diagnoses in the *Diagnostic and Statistical Manual of Mental Disorders-5* (DSM-5), such as: Acute Stress Disorder, Post-

Traumatic Stress Disorder (PTSD), Adjustment Disorder, Unspecified or Other Specific Traumatic and Stress Related Disorders (APA, 2013). Despite these available diagnoses, there are too frequently misdiagnoses. Some of the symptoms of trauma can be confused for ADHD, Oppositional Defiant Disorder, or Conduct Disorder (Van der Kolk, 2014). Van der Kolk (2014) found that 82% of children seen at the NCTSC did not meet criteria for PTSD. Furthermore, the National Comorbidity Study-Adolescent Supplement found that 5% of children 13-18 (8% female and 2.3% male) had a diagnosis of PTSD (Merikangas et al., 2010). Conversely, Humble et al. (2019) were unable to identify any studies on PTSD prevalence in children under 13, but report that this age group is the most vulnerable for ACEs.

Even though the *DSM-5* have specifications for applying PTSD to children, Van der Kolk (2014) argued that it is still not appropriate for children, thus he recommended a Developmental Trauma Disorder (DTD) diagnosis. There are three main areas in this diagnosis that he focused on, attention abilities, affect regulation, and navigation of relationships (Van der Kolk, 2014). Additionally, the diagnosis considers what the exposure was, triggers and the response to triggers, and if there is any functional impairment (Van der Kolk, 2017). Van der Kolk et al., (2019) completed a study with 236 children on the potential comorbidities of DTD, to see if there were differences from PTSD. They found that DTD had different comorbidities than PTSD such as ADHD, Separation Anxiety Disorder, Oppositional Defiant Disorder, Conduct Disorder, and Panic Disorder (Van der Kolk et al., 2019). Conversely, they reported that PTSD has comorbidities with only Major Depressive Disorder and Generalized Anxiety Disorder. They made the argument that DTD would be a more appropriate diagnosis for children because of this, which provides the mental health worker with more information for treatment. Their study had

51% White participants, 30% Black, 16% Latinx, and 3% Asian; however, they did not discuss the implications regarding race.

There is a gap in the literature on minoritized children and PTSD diagnosis, but there are studies on adults. One study found that from 34,653 respondents in the National Epidemiologic Survey from 2004-2005, 8.7% Black, Latinx 7.0%, Asians 4% and Whites 7.4% participants had a PTSD diagnosis (Roberts et al., 2011). Additionally, diagnosing for mental health disorders for minoritized children is problematic.

Nolan et al. (2001) completed a study with 3,006 school children and had their teachers' complete assessments to determine if their students meet criteria for ADHD, Oppositional Defiant Disorders, or Conduct Disorder. What they found was that Black students had higher rates than white students of meeting criteria for ADHD, Oppositional Defiant Disorders, or Conduct Disorder throughout all age groups. Additionally, they found that Black students were more likely to be receiving special education services than Whites (Nolan et al., 2001). It is important to recognize potential bias when diagnosing children, especially children who have been exposed to ACEs. Minoritized children have higher rates of ACEs than White children and are diagnosed at higher rates for behavioral disorders. There is no research on this, but future research should explore the impact of ACEs on potential behavioral disorder diagnoses based on race.

Merten et al. (2017) completed a meta-analysis of articles that focused on diagnosing of mental disorders for children and found that ADHD is the most commonly misdiagnosed mental illness. They posited that based on what they found that children are over diagnosed with mental illness. This can lead to inappropriate treatment, confusion, incorrect prescription of medication, and worsening condition (Merten et al., 2017). If someone is prescribed the wrong medication it

can lead to increased side effects and negative health outcomes (Merten et al., 2017). In order to appropriately treat a child who has been exposed to an ACE, a diagnosis must be accurate and those providing the diagnosis must be trained in the symptoms of trauma and the ACEs.

Neurobiological Development Impact of Trauma

A child's brain develops quickly as they age and if a traumatic experience happens during this expansion, it can have negative impacts on their progress (Myers, 2016; Perry & Szalavitz, 2017; Van der Kolk, 2014). Their brain development begins during the first trimester of pregnancy and continues throughout their life, with attachment, language, and memory mainly during the first 11 years (Jones, 2017), and a traumatic experience during this period can have long-term negative impacts. The full scope of the impact of ACEs on a child's neurodevelopment will likely never be fully understood, but there has been a tremendous increase in our knowledge of their effect.

When a child's brain is developing repeated actions help neurons fire and learn expected outcomes (Goodyear-Brown, 2019). For example, if a child is scared and their parent comforts them, they expect to be comforted when they are scared, their neural pathways are developing and working towards eventually self-soothing (Goodyear-Brown, 2019). Conversely, if a parent yells at a child when they are scared, the neural pathways for the child could lead to them having a short temper and not learn self-soothing (Goodyear-Brown, 2019), leaving them ill equipped for social and academic success.

Children who have been exposed to ACEs have been shown to have changes in their anterior cingulate cortex, dorsolateral prefrontal and orbitofrontal cortex, corpus callosum, limbic system, and hippocampus (Hart & Rubia, 2012; Ito et al., 1998; Luby et al., 2013; Teicher et al., 1993; Teicher & Samson, 2016). The hippocampus can become smaller which can

negatively affect attention, learning, and memory for children who have experienced trauma (McCrory et al., 2010; Petchel & Pizzagalli, 2011; Woon & Hedges, 2011). If the corpus callosum is damaged, this can reduce the ability for the brain to integrate and communicate (Hart & Rubia, 2012; Luby et al., 2013; Teicher & Samson, 2016). Another area of the brain that could be affected is the Broca's region, which is responsible for speech, which can inhibit a child's ability to talk about the trauma (Hull, 2002). Furthermore, when someone experiences a traumatic event, there are large amounts of cortisol released into the body which can negatively impact the prefrontal cortex, memory, and executive functioning (Carrion & Wong, 2012). An increase of cortisol weakens connections between amygdala and prefrontal cortex and inhibits normal development (Duffy et al., 2018; Gee et al., 2013; Pagliaccio et al., 2015). Some negative impacts on their neurodevelopment can lead to heightened sensitivity, decrease in ability for emotional regulation, aggressive behaviors, and anxiety (Blair et al., 2012; Hsieh & Chen, 2017; Tice et al., 2001). Additionally, children can fluctuate between hypoarousal and hyperarousal from their window of tolerance being narrowed (Ogden et al., 2006). Left untreated, these behaviors have dire consequences in adulthood.

The potential damage to the amygdala can lead to a decrease in the ability to respond to stressful situations calmly activating their fight, flight, or freeze (Pechtel & Pizzagalli, 2011). The amygdala is the "smoke detector" of the brain, it warns us of danger and activates fight, flight, or freeze response (Van der Kolk, 2014). People who have experienced trauma have a more sensitive amygdala and can thrust them into a hyperarousal state with a release of adrenaline increasing stress hormones which leads to a rise in blood pressure, heart rate, and oxygen intake (Van der Kolk, 2014) and returning them to their fight, flight, or freeze response. While these reactions are helpful in dangerous situations as a way to self-protect, they inhibit

normal functioning when hyperarousal occurs during non-dangerous situations. An example would be a child who had a traumatic experience with gunfire, might overreact to loud noises, such as doors slamming, or the sound of a dish breaking on the floor, etc. Additionally, it takes people who have experienced trauma longer to move back to homeostasis and calm down (Van der Kolk, 2014). The long-term effects of this could lead to memory problems, attention problems, irritability, and sleep disorders (Van der Kolk, 2014), which can lead to major distress for children, especially in schools.

Although these negative outcomes are possible, the brain has the ability to learn and change with neuroplasticity (Van der Kolk, 2014). Previous research believed that once the brain fully developed in adulthood it could not change, but new research has shown that new neurons can be generated and reinforced through experiences, which is important to understand when working with people who have been exposed to ACEs (Leitch, 2017). Neuroplasticity can be engaged through experiences with interventions that create resilience in the child, thus attempting to heal the brain (Manning et al., 2010). It is important to find an evidenced based intervention that can help correct the potential neurological impacts of trauma (Leitch, 2017). If these go untreated, then the child can grow up to have a high rate of negative health outcomes.

Long-Term Effects of Adverse Childhood Experiences

Since Felitti et al.'s (1998) original study, there have been a multitude of studies of adults who have been exposed to ACEs and how that has impacted their life (Hughes et al., 2017). There are long term effects of ACEs that can lead to negative health outcomes for adults (CDC, 2020). Hughes et al. (2017) completed a meta-analysis on the impact of studies that looked at the impact that ACEs had on adult's health. Hughes et al. (2017) found that adults who were exposed to at least one ACE had an increase for negative health outcomes, compared to those

who were not exposed to an ACE. Hughes et al. (2017) also found that the more ACEs a person has, the greater likelihood of negative health outcomes and risky behaviors. Van der Kolk (2014) reported that adult men who have four or more ACEs have a 35% chance of being diagnosed with depression and women have a 66% chance, in comparison to adults who have zero ACEs having a 12% chance. Additionally, Van der Kolk (2014) reported that people with six ACEs have a 5,000% increased likelihood of suicide attempts. Furthermore, people with six or more ACEs have a 4,600% greater chance of IV drug use compared to adults with zero ACEs. Beyond health factors, people who have been exposed to ACEs have a harder time forming positive/health relationships with others (CDC, 2020). The CDC (2020) reported adults who have been exposed to ACEs have a higher chance of the following: traumatic brain injury, fractures, burns, depression, anxiety, suicide, PTSD, unintended pregnancy, pregnancy complications, fetal death, sexually transmitted diseases (STD), cancer, diabetes, alcohol and drug abuse, unsafe sex, less education occupation, and income opportunities. Lastly, if someone was exposed to six or more ACEs, they are more likely to die 20 years earlier than people who have not (CDC, 2020). If not addressed, these negative effects can be passed on generationally to the children of people who have been exposed to ACEs (CDC, 2020). In order to understand the impact ACEs has over a person's life, the CDC has created an ACEs pyramid, see Figure 1.

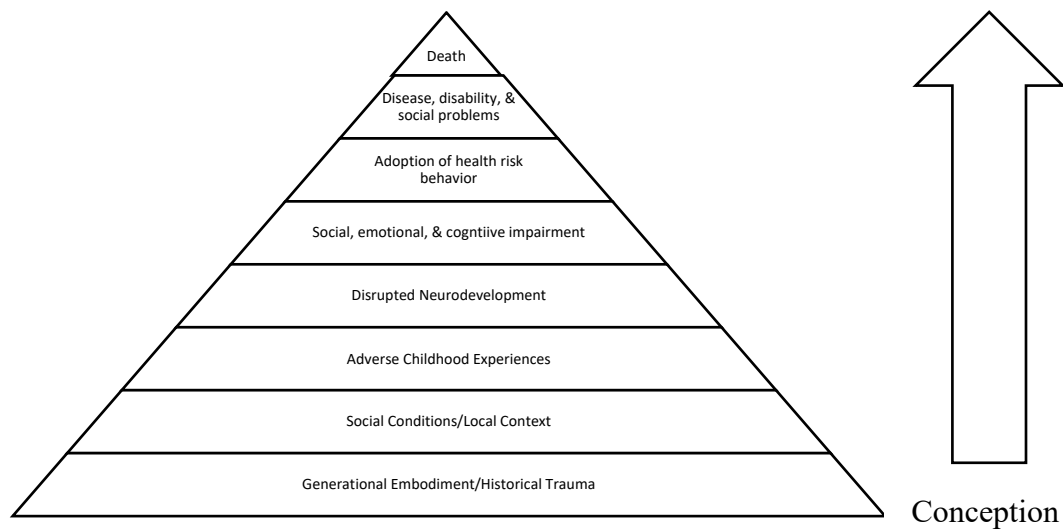


Figure 1. Adverse Childhood Experiences Pyramid

Adapted from the CDC *ACEs Pyramid*, 2020

(<https://www.cdc.gov/violenceprevention/acestudy/about.html>). In the public domain.

Monnat and Chandler (2015) examined the long-term impacts of ACEs on adults by looking at the 2009-2012 BRFSS data for adults aged 18-65. They assessed if ACEs had an impact on self-rated health, functional limitations, diabetes, and heart attack. They found that people who had experienced physical, verbal, or sexual abuse as a child, along with people who lived with someone who was depressed, abused drugs or alcohol, or parental divorce had lower rates of self-rated health reports and higher rates of functional limitations. They also found that participants who experienced physical abuse, sexual abuse, or witnessed domestic violence had higher rates of diabetes than those who did not. Lastly, they found that participants that experienced physical abuse, divorce, someone who had drug and alcohol problem, and someone who had been incarcerated had greater odds of a heart attack (Monnat & Chandler, 2015).

A mitigating factor in negative health outcomes for people who have been exposed to ACEs could be their hesitation to seek out and receive medical attention. A study by Koball et al. (2021) found that children who have been exposed to at least one ACE did not return for follow-up visits, more frequently used emergency services, or did not utilize other resources available

for medical assistance. They had an n of 1,183 children that completed the ACEs during their visits with their health care provider. They analyzed data from the electronic medical records system and found that children who were exposed to at least one ACE were more likely to no-show appointments and utilize emergency services more frequently than children who did not have any ACEs. Lastly, they found that children with four or more ACEs were less likely to use the telephone nurse advisor than children who had less than four ACEs. The results of this study sheds important light on how ACEs can lead to negative health outcomes.

Not only are there negative health outcomes to consider with ACEs, but there is a price tag. Peterson et al. (2018) found that ACEs cost the United States a total of \$400 billion a year. The \$400 billion is spread out through multiple areas. First, quality-adjusted life year reduction is estimated to cost \$366.3 billion a year, health care costs \$22.4 billion a year, special education costs \$4.2 billion a year, child welfare costs \$4.1 billion a year, and criminal justice is \$3.5 billion a year (Peterson et al., 2018). In a more recent study, Bellis et al. (2019) found that ACEs cost the United States \$748 billion a year and Europe \$581 billion a year. With these long-term impacts of ACEs having such negative results, it is vital to have an early treatment options to mitigate the possible outcomes.

Need for Early Treatment

Due to the increase in negative health outcomes and risky behaviors for people who have been exposed to an ACE, the cost for countries is dramatic. Researchers recommend that early screening of children to determine if they have an ACE is important to helping alleviate their potential symptoms (Finkelhor, 2018; Leitch, 2017; Melville, 2017; Ray et al., 2020). Although screening is an important to mitigate potential symptoms, there are cautions with screening. McKelvey et al. (2016) reported on the difficulties of getting parents to honestly answer

questions on the ACEs for their children. McKelvey et al. (2016) discussed that the parents could be the ones who are the cause for the ACEs and then are being asked to report it. It creates a potential issue with getting accurate results on ACEs. One thing that is agreed upon in most research, is the need for an evidenced-based early treatment option to address the mental health needs of children who have been exposed to ACEs (CDC, 2020; Finkelhor, 2018; Letich, 2017; Melville, 2017; Ray et al., 2020).

It is crucial to find an early treatment modality to help limit the negative impact of ACEs. The CDC (2020) recommended children who have been exposed to ACEs to receive victim-centered services, treatment to lessen the effects, social emotional learning, and many others. The CDC (2020) also recommended that children who have been exposed to ACEs build a safe relationship with an adult to assist in management of their response to trauma. It is important to find appropriate interventions that can address the neurological impact of ACEs. Previous studies have suggested focusing on behavioral interventions to work with children who have been exposed to ACEs (Clarkson Freeman, 2014; Godinet et al., 2014; Jimenez et al., 2016).

There are multiple theories and interventions that have been proposed or shown promise when working with children who have been exposed to ACEs, such as: trauma-focused cognitive behavioral therapy (TF-CBT), trauma-focused integrated play therapy (TF-IPT), theraplay, and CCPT (Booth & Winstead, 2016; Gil, 2012; Haas, 2017; Kram, 2019; Lenz & Hollenbaugh, 2015). Additionally, Perry (2006) created a transtheoretical approach to treat children who have experienced trauma in a neurobiologically appropriate way. TF-CBT is a manualized adaption of cognitive behavioral therapy that focuses on children and adolescents who have experienced trauma (Lenz & Hollenbaugh, 2015). TF-CBT is short-term and focuses on sessions with the child and parent. Lenz and Hollenbaugh (2015) completed a meta-analysis on 21 TF-CBT with

children and adolescent articles, with a total of 1,860 participants and 1,009 of them receiving TF-CBT. They found that TF-CBT was exceptionally superior to no treatment and wait-list control groups and moderately superior to other treatments for decrease PTSD symptoms and depression symptoms (Lenz & Hollenbaugh, 2015).

Eliana Gil (2012) created TF-IPT that combined directive and non-directive play therapy to address childhood trauma. There is a focus on the relationship within the therapy, but it has a structure to it that combines many different interventions and theories. There has been no empirical research on TF-IPT but does have a high rating on the Child Welfare System Relevance from the California Evidence-Based Clearinghouse for Child Welfare (n.d.). Theraplay has also been shown to be effective with attachment and children who have experienced trauma, but it is not a theory and requires an extensive amount of training (Booth & Winstead, 2016).

The NeuroSequential Model of Therapeutics (NMT) was created by Perry (2001) as the first treatment for addressing children who have experienced trauma in a neurologically informed way. There are four areas for the client: developmental history, current functioning, treatment planning, and implementation (Perry & Szalavitz, 2017). The developmental history focuses on in depth information regarding the trauma the child experienced, as well as resiliency experiences, and support from family and friends to assess developmental risk (Perry & Szalavitz, 2017). The current functioning focuses on the client's strengths and "therapeutic web" (supports) to assess how their brain is organized (Perry & Szalavitz, 2017). Additionally, in the stage they gather biological data (heart rate regulation, respiration, the suck, the swallow, gag reflexes, and regulation of body temperature), this helps them create a picture of their brain functioning (Perry & Szalavitz, 2017). The treatment planning takes all the information from the

first two (developmental history and current functioning) to create the sequence of interventions to address the client's needs (Perry & Szalavitz, 2017). Lastly, there comes implementation where they implement the treatment plan and track progress of the client and adjust as needed (Perry & Szalavitz, 2017). The NMT is helpful for therapists to conceptualize and help their clients based on their neurodevelopmental impacts from their trauma.

In NMT, they offer a hierarchy of brain function (Perry & Szalavitz, 2017). It is a bottom-up neuro development approach, starting with the brainstem, to midbrain, to limbic, and the ending at cortical (Perry & Szalavitz, 2017). Using NMT allows for the therapist to identify which area the child's brain is underdeveloped and focus on that with repeated experiences (Perry & Szalavitz, 2017). In each region of the neuro development in NMT there are certain things the body learns to regulate to move up the hierarchy. The list is as follows, in this order: temperature, heart rate, blood pressure, sleep, appetite/satiety, arousal, motor regulation, emotional reactivity, sexual behavior, attachment, affiliation/reward, concrete thought, and abstract thought (Perry & Szalavitz, 2017, p. 295).

To address these, Gaskill (2007) recommended four types of intervention strategies, structuring, engaging, nurturing, and challenging. Gaskill (2007) stated that structuring the environment is crucial to create consistency for the child and limit setting, for them to feel safe. Gaskill (2007) stated that engaging strategies are using both verbal and non-verbal responses to create a safe and positive relationship with the child. Gaskill (2007) recommended using the same skills used in theraplay as well as CCPT, which will be discussed later in this chapter. Gaskill (2007) stated that nurturing activities can children help calm and regulate themselves. The goal of this is to repeatedly nurture the child when they need to so they will learn to regulate their own emotions in the future. Lastly, Gaskill (2007) stated that challenging the client focuses

on problem solving solutions that the child can come up with, prompts to cue the child, and neurosequential enhancement activities. These are all strategies that can be used to enhance the neurodevelopment of a child who has been exposed to ACEs. If these areas go unaddressed, it can lead to negative long-term help outcomes for the client in adulthood.

Little research exists specifically implementing CCPT as a possible early treatment for children who have been exposed to ACEs (Haas, 2017; Humble et al., 2019; Kram, 2019; Parker et al., 2021). Ray et al. (2020) recommended a treatment that is different from those previously discussed. She suggested nondirective treatment focused on empathy, social skills, and self-regulation rather than behavioral interventions. CCPT could be a possible intervention in early treatment for children who have been exposed to ACEs but needs more research. CCPT meets the criteria recommended by Ray et al. (2020) and has promise to be an appropriate intervention to use with children who have experienced trauma to mitigate the long-term effects (Humble et al., 2019). CCPT has been proposed a possible early treatment that could be effective in alleviating symptoms from ACEs (Gutermann et al., 2016; Haas, 2017; Humble et al., 2019; Kram, 2019; Parker et al., 2021).

Play Therapy

Play therapy is defined by the Association of Play Therapy (APT) as “the systemic use of theoretical model to establish an interpersonal process wherein trained play therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve optimal growth and development” (n.p., 2019a). It has taken 100 years to come to a definitive definition of what play therapy is. Since that time, APT has worked to provide ethical training, research, and guidelines for play therapist. The APT was established in the 1980s and since then has created certifications for play therapist. They now have three levels of certifications:

Registered Play Therapist, Registered Play Therapist-Supervisor, and School-Based Play Therapist (APT, 2020; APT, 2019b; APT, 2017). Extensive training is required to obtain these certifications, such as the Registered Play Therapist certification takes 150 hours of play therapy instruction over two years, 350 hours of direct client contact, and 35 hours of play therapy supervision (APT, 2019b). To become a Registered Play Therapist-Supervisor someone must complete 3,000 direct client hours after full licensure, 500 additional play therapy hours, and 30 hours of continuing education (APT, 2020). Lastly, in order to become a School-Based Play Therapist someone must have 150 hours of education in play therapy, two years of work in a school, 600 direct hours of play therapy, and 50 hours of play therapy supervision (APT, 2017). APT has worked diligently for the last 40 years to advocate for the field of play therapy and it is now practiced across the world and disciplines (social work, counseling, psychology, marriage and family, and school counseling) to address the needs of children. It was not always this way. In the beginning of play therapy, many early theorists posited hypothesis on child development and the most appropriate ways to work with children to address their mental health, with debate on the most effective way.

The search for understanding the mental health needs of children began in the late 1800's and early 1900's when researchers such as Sigmund Freud, Carl Jung, Otto Rank, and Alfred Adler began observing children and their play (Johnson, 2016). These researchers had different views on the meaning of play and the development of healthy and maladaptive behaviors in children. The field of child psychotherapy began with initial observations and then hypotheses were formed regarding child development by these early psychotherapists and analysis of children's play continued with a new group of investigators (Johnson, 2016). Freud spent much time observing children through their play and found that children liked creating their own world

and would repeat negative experiences to gain control of the story (Johnson, 2016). Adler focused most of his research on the impact of family and birth order, and his theories were later turned in a play therapy approach by Terry Kottman (Johnson, 2016). Jung focused most of his work on archetypes and his views differed than Freud, and his work was applied to play therapy later in life by Margret Lowenfield (Johnson, 2016). Rank was one of the first to focus on the importance of the relationship with the child and the present moment (Johnson, 2016).

Whereas all these early researchers had differing hypothesizes about children and their mental health, they all focused on play as the therapeutic means to work with children. From their early work, new theories on child development emerged and those informed the work of future and current play therapists (Ray, 2011). There are two important areas to cover when discussing the history of play therapy: first, child development theories and second, early play therapists. This dissertation will first discuss one of the most influential child development theories from Jean Piaget (cognitive development) and then early play therapists such as Hermine Hug-Hellmuth, Melanie Klein, Anna Freud, and Virginia Axline.

Child Developmental Models

There have been multiple models of child development proposed from Piaget (cognitive), Erikson (psychosocial), Freud (psychosexual), Bowlby (attachment), and many others (Johnson, 2016). Piaget identified four stages of cognitive development, sensorimotor, preoperational, concrete operational, and formal operational (Piaget, 1936). These stages focus on the way that children's brains, thoughts, and influence the way that they act in the world. Although Piaget's theory was developed by his observations of his children, it has still played an important role in child development and understanding play therapy. Piaget (1951; 1972) reported that children begin to develop cognitively before they develop verbally. Piaget (1951) proposed that play

gives a child the opportunity to express their world in their natural language, thus his research is an important factor in the development of play therapy. Piaget's hypotheses regarding the development of cognition and language, make it an appropriate developmental model in play therapy.

The first stage, sensorimotor, lasts from birth to age two and focuses on the child's development through schemas. Piaget (1936) proposed schemas as thoughts or ideas about what things are and what to do with them. During the sensorimotor stage, children's first schemas, specifically action schemas, are related to reflexive movement from stimuli. Additionally, during this stage children begin to understand their self, the world, cause and effect, and simple ideas about time and space (Piaget, 1936). Lastly, Piaget (1936) discussed children learning object permanence during this stage, that objects still exist, even if they cannot see them.

The second stage in Piaget's cognitive development theory is preoperational and lasts from age three to seven. Piaget (1936) proposed that this stage is marked by a development in children's logic, vocabulary, animism, moral realism, and symbolism. Despite these developments in this stage, children still lack the ability to focus on others and on one situation at a time (Piaget, 1936). Additionally, children begin to master pretend play during this stage.

The third stage in Piaget's cognitive development theory is concrete operational stage and lasts from age seven to 11. Piaget (1936) proposed that this stage is marked by children's logic increasing about concrete events and becomes more organized. Additionally, during this stage children understand that others have different thoughts than them and begin to move away from an egocentric view (Piaget, 1936). Lastly, during this stage children learn that even though objects might change, they can still be the same as before, just in a different shape (Piaget, 1936).

The fourth and final stage in Piaget's cognitive development theory is formal operations and lasts from age 11 to 18. Piaget (1936) proposed that this stage is marked by children's logic being more adult oriented, hypothetic-deductive reasoning increasing, focusing on verbal assertions and evaluation of them, and a rapid growth in abstract thought. This growth leads to an increase in planning for the future, moral and ethical thoughts (Piaget, 1936).

The early theorist debated on child development theories and what was the most appropriate way to work with children in psychotherapy. Their early work was important for future play therapists to help inform their work with children. Ray (2011) proposed that understanding child development models are important for when utilizing play therapy. Ray (2011) provides suggestions for play therapists when incorporating child development into their work that focused on conceptualizing the child and their development, educating parents, assessing their development in sessions, and to determine progress. There were multiple child development theories during the early to mid-1900s that helped inform the work of early play therapist such as Hermine Hug-Hellmuth, Melanie Klein, Anna Freud, and Virginia Axline.

Play Therapy Development

Hermine Hug-Hellmuth was one of the first therapists to write about psychoanalysis with children (Hug-Hellmuth, 1919; Johnson, 2016; Plastow, 2011). Hug-Hellmuth wrote papers on play therapy and psychoanalysis and through her observations reported that children's play is symbolic and is an appropriate way for children to communicate (Hug-Hellmuth, 1921). Additionally, she posited that play could help build a relationship with a child and understand their symptoms (Hug-Hellmuth, 1921). Building on these hypothesis, other theorists applied them to their work with children.

Melanie Klein took many of Hug-Hellmuth's ideas and applied more structure to her work (Johnson, 2016). Klein wrote about her work in *The Psychoanalysis of Children* (1932) and stated her belief that children's play and symbolic meaning can be interpreted with psychoanalysis, starting in the first session. She developed a structure of meeting for 50-minute sessions five times a week. Additionally, Klein identified specific skills to use such as reflection of good and bad feelings and limit setting on aggression when engaged in a role play (Klein, 1955).

Anna Freud continued the work of psychoanalysis of children's play and believed that making too many adjustments to the underlying theory to adapt to children lessens the effectiveness (Johnson, 2016). Anna's early work focused on building a relationship with the child through play, not offering many interpretations, and the use of free association (Freud, 1965). She did not focus her entire work on play therapy, but her theories are influential in the field of play therapy (Johnson, 2016) and offered groundwork for other theorists to expand upon.

Carl Rogers founded humanistic counseling, later referred to as person centered and believed that being non-directive and accepting the client for who they are important for clients to self-actualize (1951). Rogers was influenced by Otto Rank's focus on the relationship between the counselor and client and built on that (Johnson, 2016). One commonality between Rogers and the rest of the theorist, was that they believed play was an important part of a child's progress through psychological issues. Rogers (1957) theorized that the main factor for client change was the therapeutic relationship. Rogers took a non-directive approach to working with his clients (Rogers, 1951; 1957).

Rogers believed in three core conditions needed for therapeutic change: congruence (genuineness), unconditional positive regard and acceptance, and empathy (Rogers, 1957).

Rogers (1957) felt that these three conditions needed to be present by in order to create a space where the client can self-actualize (Rogers, 1957). Rogers (1957) described congruence (genuineness) as a counselor being authentic and real with their clients. Rogers (1957) described unconditional positive regard and acceptance as the ability to care for a client and not put values on their behaviors, thoughts, or feelings and prize them for who they are. Lastly, Rogers (1957) described empathy as the counselor's ability to understand their client's worldview and feelings. Rogers posited that there were six conditions needed to be met in order for the client to change:

1. Two persons are in psychological contact.
2. The first whom we shall term the client, is in a state of incongruence, being vulnerable or anxious.
3. The second person, who we shall term the therapist, is congruent or integrated in the relationship.
4. The therapist experiences unconditional positive regard for the client.
5. The therapist experiences an empathetic understanding of the client's internal frame of reference and endeavors to communicate this experience to the client.
6. The communication to the client of the therapist's empathic understanding and unconditional positive regard is to a minimal degree achieved. (Rogers, 1957, p.96)

Rogers (1951; 1957) felt these conditions and focusing on the relationship as the therapeutic change agent allowed for the client to self-actualize and change. Additionally, he wrote of 19 propositions for personality development and change (Rogers, 1957). Furthermore, he wrote about incorporating person-centered counseling with children (Rogers, 1951). Play therapists like Virginia Axline worked with and broadened Roger's work to develop a relationship based/non-

directive play therapy approach. This dissertation will discuss Axline and her contributions to play therapy later in this chapter.

After Axline's (1947) work of developing non-directive play therapy, other theorist borrowed from her ideas and other early theorist to develop more directive play therapy approaches. One that emerged was theraplay, which focuses on attachment of the child (Johnson, 2016). Theraplay is mostly directive with the therapist facilitating the ability to build attachment with the child and guardian. Additionally, Virginia Oaklander adapted gestalt therapy into gestalt play therapy where a therapist takes a more active role, but still focuses on the relationship and allows for the child to take the lead when they are ready (Johnson, 2016).

Other play therapy theories that emerged later in the 1900's were Jungian play therapy, Adlerian play therapy, and cognitive behavioral play therapy. Jungian play therapy was developed by John Allan and focused on the unconscious part and building a relationship with the client (Johnson, 2016). From Jungian play therapy came the use of metaphors and sand play (Johnson, 2016). Adlerian play therapy was developed by Terry Kottman which focused on four phases of treatment which moves from non-directive to directive, and involves activities (Johnson, 2016). Lastly, cognitive behavioral play therapy was developed by Susan Knell that focused on behavioral interventions through play therapy focused on desensitization, positive reinforcement, irrational beliefs, and using coping self-statements (Johnson, 2016). Although these theories take a more directive approach than non-directive play therapy, they still focus on the relationship and that the playroom is the best place for a child to work through their issues.

Play therapy and child development has been researched for 100 years and has led to multiple non-directive and directive therapies. One of the most commonly taught and researched theories is CCPT (Lambert et al., 2007; Yee et al., 2019). Axline built off previous theorists like

Rank, Fredrick Allen, and Rogers to create a non-directive play therapy approach that focuses on the relationship with the child.

Child-Centered Play Therapy

In the 1930s Fredrick Allen developed relationship-based play therapy (Johnson, 2016). Similar to Rogers and Rank, Allen postulated that creating a relationship where children feel free and independent would lead to them self-actualizing and change (Johnson, 2016). Building on Allen's work to further develop the theory was Virginia Axline and her book *Play Therapy: The Inner Dynamics of Childhood* (1947) that named the theory non-directive play therapy, and later became referred to as CCPT (Ginot, 1959). Axline's book sold worldwide and brought an abundance of attention to play therapy (Johnson, 2016). Axline began her non-directive work with her colleague Carl Rogers and wrote an article providing examples of non-directive case studies between teachers and children (Axline & Rogers, 1945).

Axline and Rogers both worked with children through play therapy, but Axline expanded Roger's work on non-directiveness and maintained the focus on the core condition of unconditional positive regard, empathy, and congruence. Axline (1947) postulated that children's language was through play and that the playroom was the best place for them to grow. It is important to provide children with a safe environment where they are fully accepted and can be free express and learn to control their emotions. Using non-directive play therapy with children requires the therapist to be patient, accepting, present, sensitive, and trusting of the child (Axline, 1947).

Axline believed that there are eight basic principles of non-directive play therapy:

1. The therapist must develop a warm, friendly relationship with the child, in which good rapport is established as soon as possible.

2. The therapist accepts the child exactly as he is.
3. The therapist establishes a feeling of permissiveness in the relationship so that the child feels free to express his feelings completely.
4. The therapist is alert to recognize the feelings the child is expressing and reflects those feelings back to him in such a manner that he gains insight into his behavior.
5. The therapist maintains a deep respect for the child's ability to solve his own problems if given an opportunity to do so. The responsibility to make choices and to institute change is the children.
6. The therapist does not attempt to direct the child's actions or conversation in any manner. The child leads the way; the therapist follows.
7. The therapist does not attempt to hurry the therapy along. It is a gradual process and is recognized as such by the therapist.
8. The therapist establishes only those limitations that are necessary to anchor the therapy to the world of reality and to make the child aware of his responsibility in the relationship. (Axline, 1947, p. 75-76)

Axline (1947) believed that developing rapport is the first step to everything else. While rapport is established, it is crucial for the counselor to accept the child exactly the way they are. This does not mean approval of the child's behaviors, but acceptance which comes from the counselor's attitude displayed towards the child (Axline, 1947). There are not many places that a child is fully accepted, but the playroom is one place where they are. From the rapport and acceptance, the counselor works towards creating a space in the playroom where the child can express their feelings freely and reflect those back to them (Axline, 1947). Through all the work the counselor must respect the client and give them the room they need to complete tasks and

make decisions independently (Axline, 1947). Lastly, it is important to set the appropriate limits with children when needed to ensure they do not get hurt and are responsible (Axline, 1947).

Axline showcased her non-directive play therapy work in *Dibs: In Search of Self* (1964) that focused on her work with one client over many years. It provided transcriptions of sessions and case conceptualizations throughout. This book sold millions of copies worldwide and expanded people's knowledge of play therapy, specifically non-directive play therapy.

Furthering Axline's work, Garry Landreth (2012) developed the Center for Play Therapy at University of North Texas where he began researching and training play therapists in CCPT. Expanding on Rogers work of 19 propositions for personality and human development (Rogers, 1951) which were broken down for play therapy by Landreth (2012):

1. Being the best determiner of personal reality. The child's perceptual field is "reality."
2. Behaving as an organized whole.
3. Striving toward independence, maturity and enhancement of self.
4. Goal directed in an effort to satisfy needs.
5. Being behaviorally influenced by feeling that affect rationality.
6. Behaving in ways that are consistent with the self-concept.
7. Not owning behavior that is inconsistent with the self-concept.
8. Responding to threat by becoming behaviorally rigid.
9. Admitting into awareness experiences that are inconsistent with the self if the self is free from threat. (p. 60)

Similar to Rogers and Axline, Landreth (2012) believed that change comes from the relationship and creating a space for the child to grow. It was posited that being real, sensitive, and warm/caring are crucial to establish a relationship with a child; however, he found it hard to

define what the relationship looks like since they all vary. Although it is hard to define what the relationship looks like, 10 tenets to relating to children were identified:

1. Children are not miniature adults.
2. Children are people.
3. Children are unique and worthy of respect.
4. Children are resilient.
5. Children have an inherent tendency toward growth and maturity.
6. Children are capable of positive self-direction.
7. Children's natural language is play.
8. Children have a right to remain silent.
9. Children will take the therapeutic experience to where they need to.
10. Children's growth cannot be speeded up. (Landreth, 2012, p. 46)

In addition to these 10 tenets of relating to a child, Landreth (2012) identified the phenomenal field as another important thing to consider when working with children. The phenomenal field, as described by Landreth (2012), focused on the child's experiences are filtered through their own lens, thus making it their own reality. Landreth (2012) stated that it is imperative for the play therapist to understand this and attempt to look at the world through the child's eye. The play therapist does not place value or judgement on this view, but it helps them better understand the child's life (Landreth, 2012). He believed that children have an ability to move towards self-actualizing as evidenced by their ability move through child developmental stages. Since its inception and subsequent development, CCPT has grown to the most commonly used and accessible form of play therapy today (Lambert et al., 2007).

These are all important factors to consider when working with a child in CCPT to create a space for the child to feel safe and understood in their play, which can be therapeutic. A child must have an appropriately created playroom in order to feel safe and express themselves. Over many years of research Landreth (2012) and Ray (2011) have created guidelines on creating playrooms for use in CCPT.

Playroom Materials and Toys

It is important to have an appropriate playroom with specifically chosen toys to conduct play therapy. The size of the playroom should be 12 by 15 feet to allow enough space for toys (Landreth, 2012; Ray, 2011). Other recommendations included a sink, private bathroom, easy to clean floor and walls, off-white walls, private, with no windows, a chalk board, storage shelves, and a table (Landreth, 2012). In addition to the room specifics, Landreth (2012) discussed toys for the playroom.

Landreth (2012) recommended that the toys in the room facilitate the seven essentials in play therapy: establishment of a positive self-relationship with the child, expression of wide range of feelings, exploration of real-life experiences, reality testing of limits, development of a positive self-image, development of self-understanding, and opportunity to develop self-control (Landreth, 2012, p. 157). He identified three categories of toys needed for a playroom: real-life toys, acting-out aggressive-release toys, and toys for creative expression and emotional release. Real life toys include doll family, dollhouse, puppets, and nondescript figures. Acting out/aggressive toys include Bobo (bop bag), toy soldiers, alligator puppet, guns, and rubber knives. A few examples of toys for creative expression and emotional release are sand and water (Landreth, 2012). It is recommended that play therapist ensure they are acquiring culturally

diverse for the playroom (Landreth, 2012). Landreth (2012) has eight recommendations for selecting toys that:

1. Facilitate a wide range of creative expression.
2. Facilitate a wide range of emotional expression.
3. Engage children's interests.
4. Facilitate expression and exploratory play.
5. Allow exploration and expression without verbalization.
6. Allow success without prescribed structure.
7. Allow for noncommittal play.
8. Have sturdy construction for active use. (p. 156)

See Table 6 for a list of toys for a play therapy room.

Table 6. Playroom Toys and Materials

Play Therapy Toys for Playroom		
Balls (large and small)	Egg cartons	Rubber knife
Band-aids	Empty fruit and vegetable cans	Rubber snake, alligator
Barbie doll	Erasable nontoxic markers	Sandbox
Bendable doll family	Flashlight	School bus
Blunt scissors	Gumby	Soap, brush, comb
Bobo (bop bag)	Hand puppets	Spider and other insects
Broom, dustpan	Handcuffs	Sponge, towel
Building blocks	Hats	Stove
Cereal boxes	Lone-Ranger style mask	Stuffed animals
Chalkboard, chalk	Medical kit	Telephone
Colored chalk, eraser	Medical mask	Tinker toys
Construction paper	Nursing bottle	Tissues
Crayons, pencils, paper	Pacifier	Tongue depressors, popsicle sticks
Cymbals	Paints, easel, newsprint, brushes	Toy noise making gun
Dart gun	Pitcher	Toy soldiers and army equipment

Table 6. Playroom Toys and Materials Cont.

Play Therapy Toys for Playroom		
Dinosaurs, shark	Play camera	Toy watch
Dishes	Play money and cash register	Transparent tape, nontoxic glue
Dishpan	Pots, pans, silverware	Truck, car, airplane, tractor, boat, ambulance
Doll bed, clothes, blanket	Pounding bench and hammer	Watercolor paints
Doll furniture	Puppet theater	Xylophone
Dollhouse	Purse and jewelry	Zoo animals and farm animal families
Dolls, baby, clothes	Rags and old towels	
Dress-up clothes	Refrigerator	
Drum	Rope	

Landreth, 2012, p. 167-169

In addition to Landreth (2012) identifying toys for playrooms, he also provided guidance on play therapy tote bags for play therapist who do not have a consistent office. Landreth recommended the basic toys for children to express themselves in CCPT to include in these tote bags. This allows for a play therapist to complete play therapy sessions at schools, homes, and other environments where play therapists do not have consistent offices. See Table 7 for a list of toys.

Table 7. Tote Bag Playroom Recommendations

Tote Bag Playroom Toys		
Aggressive hand puppet	Doll house	Popsicle sticks
Band-aids	Doll house furniture	Rubber knife
Bendable doll family	Handcuffs	Small airplane
Bendable gumby	Lone ranger mask	Small car
Blunt scissors	Medical masks	Spoons
Costume jewelry	Nerf ball	Telephone
Cotton rope	Newsprint	Toy soldiers
Crayons	Nursing bottle	Transparent tape
Dart gun	Pipe cleaner	Two play dishes and cups
Doll	Playdough	

Landreth, 2012, p. 166-167

The playroom and toys are one aspect of CCPT. In order for the playroom and environment to be truly effective, a CCPT therapist must use the recommended skills (Landreth 2012; Ray, 2011). Landreth (2012) and Ray (2011) identify nonverbal and verbal skills for CCPT to use in sessions.

Child-Centered Play Therapy Skills

There are verbal and non-verbal skills in play therapy that are used during sessions, that Ray (2011) tracks on the Play Therapy Skills Checklist (PTSC) in the *Child-Centered Play Therapy Treatment Manual*, within the *Advanced Play Therapy: Essential Conditions, Knowledge, and Skills for Child Practice* book. Ray (2011) highlighted the importance of focusing on the three core conditions from Rogers (1957) of congruence, unconditional positive regard, and empathic understanding to create an environment for self-actualization. Ray (2011) stated the following regarding CCPT skills: “CCPT calls for the therapist to ‘be’ someone, and not just ‘do’ something” (p. 71). This allows for the CCPT therapist to focus on the core conditions recommended by Rogers (1957).

There are nonverbal and verbal skills used in CCPT to create a nonthreatening appealing space for a child to feel safe in and for the therapist to connect with them (Ray, 2011). Nonverbal skills include leaning forward/open, appearing interested, relaxed/comfortable, tone/expression congruent with child’s affect, tone/expression congruent with the therapist’s response, succinct/interactive, and appropriate rate or responses. Verbal responses include tracking behavior, reflecting content, reflecting feeling, facilitating decision making/responsibility, facilitating creativity/spontaneity, esteem building/encouraging, facilitating relationship, and limit setting (Ray, 2011). These skills are vital to creating a safe environment and strong therapeutic relationship. The nonverbal skills allow for the child to feel safe in the playroom and

relate with the therapist, as well as increase the therapist's genuineness (Ray, 2011). The verbal skills are crucial to the therapist to accurately connect with and hear the child (Ray, 2011).

Even though non-verbal skills are equally as important as verbal skills, they are more difficult to track (Ray, 2011). The goal of non-verbal skills is to create a welcoming environment for the child to where they can feel accepted. Due to non-verbal skills being hard to track, Landreth (2012), Ray (2011), and Rogers (1980) described it as "a way of being."

Ray (2011) stated that because children express themselves through play and often times non-verbally, the play therapist must be using the non-verbal skills appropriately. The play therapists must find ways to let the child know that they are in the lead. This can be completed by the play therapist sitting in a chair outside of the child's space, leaning forward in the chair with an open body posture, and being relaxed and comfortable. Two non-verbal skills suggested by Ray (2011) that lets the play therapist connect with the child on an emotional level are tone/expression being congruent with the child's affect and with the therapist's response. It is crucial for the play therapist to respond to the child in a tone that is congruent with the child's affect and not be over animated. It is important to establish genuineness with the child for the play therapist to ensure their tone/expression is congruent with their own words and affect (Ray, 2011).

There are special considerations when using CCPT verbal skills in session. First, due to children's short attention span play therapists should ensure their responses are short. Second, the play therapist should match the level of the child. For example, if the child is more active in session and talking to the play therapist, they should use verbal skills more often (Ray, 2011). The skill of tracking is when a play therapist states what the child is doing to communicate interest and acceptance (Ray, 2011). Reflecting content is when the play therapist paraphrases

what the child said to validate the child's experience (Ray, 2011). Reflecting feeling is when a play therapist responds to a child's expression of feelings which can lead to the child becoming more guarded or gain awareness (Ray, 2011). Facilitating decision making/returning responsibility is when a play therapist uses a facilitative response to allow children to make their own decisions in the playroom to assist them in their autonomy (Ray, 2011). Facilitating creativity/spontaneity is when a play therapist accepts and encourages a child to unlock their imagination to let them know they are unique (Ray, 2011). Esteem building/encouraging responses is when a play therapist acknowledges and validates the child's hard work, so they know they are capable (Ray, 2011). Facilitating Relationship responses is when a play therapist focuses on building a safe and accepting relationship to have a positive relationship (Ray, 2011).

Limit setting is one of the more advanced skills and is used by the counselor when a child or counselor is in danger of being physically hurt while playing, to structure the session, to provide decision making and responsibility grounded in reality, and to protect the playroom and toys. The ACT limit setting model which stands for: Acknowledge the feeling, Communicate the limit, and Target alternatives (Landreth, 2012; Ray, 2011). The ACT model is used to "communicating understanding and acceptance of the child's motives, to make the limit clear, and to provide acceptable alternatives to actions and behaviors" (Landreth, 2012, p. 271). Bringing together the playroom set up and skills, Ray (2011) created a protocol to use CCPT and has recommendations for when utilizing it.

Child-Centered Play Therapy Protocol

Ray (2011) created a CCPT protocol using it as an intervention and history to help train new play therapists in the skills. The protocol included first creating an appropriate playroom, selecting recommended toys, and the use of verbal, and non-verbal skills with the client (Ray,

2011). In order to evaluate the use of nonverbal and verbal skills in CCPT, Ray (2011) created the PTSC to be used in supervision to ensure the play therapist is using the appropriate skills. The PTSC is used in play-therapy supervision to assess their use of CCPT skills. The PTSC has all nonverbal and verbal skills suggested by Ray (2011), and if they are being used too much, not enough, or appropriately. Ray (2011) reported previous research has shown that 35-40 CCPT sessions are best for long-term change in children, but other research has shown that 15-20 sessions can lead to change too. Additionally, Ray (2011) recommended sessions lasting between 30-50 minutes, with each session being the same length.

The PTSC is also used in research to ensure fidelity when using CCPT as an intervention. Ray et al. (2017) suggested that if using CCPT for research, the appropriate skills should be used at least 90% of the time in sessions. Through this research Ray et al. (2017) created the Child-Centered Play Therapy Research Integrity Checklist (CCPT-RIC) to use specifically for research. It is measured by an experienced play therapist watching videos or live sessions of a less-experienced play therapist doing CCPT and measuring how often they are using appropriate CCPT responses with their client. The CCPT-RIC psychometrics are still being measured, but in past studies they have shown to have high rates of interrater reliability of .95. The CCPT-RIC helps in advancing the research on CCPT and increases the fidelity of the research.

Child-Centered Play Therapy Progress

When using CCPT, tracking progress can be difficult. Ways to track progress within CCPT is to focus on first time behaviors, themes in play, and reports from parents/teachers/caregivers during meetings (Landreth, 2012; Ray, 2011). There are multiple theories of change for children in play therapy, but a lack of consensus on which one is most appropriate (Ray, 2011). Guerney (2011), Moustakas (1973), Norton and Norton (1997), and

Ray (2011) have all proposed on models on stages of change for children in play therapy, but there is a lack of research on their efficacy. Tracking change in CCPT is difficult due to its humanistic nature and tracking change with children is harder than with adults (Ray, 2011). One way to track progress in CCPT was proposed by Landreth (2012) of looking for firsts.

Landreth (2012) posited that first-time behaviors in the playroom are an important way to mark change in CCPT. He provided examples of when a child plays with one thing every session, such as art materials, and then one session does not play with those. He hypothesizes that this means the child is progressing emotionally. Other examples included if you have to start setting limits and have not in previous sessions or if the client wants to engage in play with the play therapist.

Another model of change through play therapy was proposed by Norton and Norton (1997). They present five stages within their model, exploratory stage, testing for protection, dependency stage, therapeutic growth stage, and termination stage. Their model posited that a child's presenting problem might increase during the testing for protection and dependency stage of play therapy. Although the symptoms related to the presenting problem might increase during this time, during the end of the dependency stage into the therapeutic growth stage, the child's symptoms and presenting problems will decrease. Lastly, they hypothesized that during the termination stage the child's symptoms related to the presenting problem will increase and level off (Norton & Norton, 1997).

Themes are an important part of tracking progress and change for clients in CCPT; however, they are difficult to identify. Ray (2011) defined a play theme as "a coherent metaphor from which the child communicates the meaning he or she attributes to experience" (p. 106). With themes being difficult to identify, Ray (2011) suggested play therapists look at repetition,

intensity, and context from the client's play to identify themes. Ray provides a list of potential themes to look for: relationship, power/control, safety/security, mastery, nurturing, helplessness, aggression, integration, self-sufficiency, anxiety, resilience, dependency, revenge, grief/loss, abandonment, protection, separation, reparation, chaos/instability, perfectionism, and hopelessness (Ray, 2011, p. 115-116). She provided recommendations on how to track progress through themes by the child's tone, resolution to the problem, intensity, and more or less verbalization.

Getting feedback from other adults who are around the child is important to measuring progress (Landreth, 2012; Ray, 2011). The play therapist is not with the child in all settings, and it is important to gather this information from other adults to track progress. This can be done during parent meetings or in consultation with other professionals. Additionally, Ray (2011) provided a list of assessments that can be completed by adults that can track progress of the child. Lastly, Ray (2011) created a continuum of play therapy progress worksheet that looks at play behaviors in session and gathers feedback from adults about behaviors outside of session. The worksheet covers the following play behaviors: aggressive, self-directed play, energy, sustained play behaviors, destructive, messy, verbalization, response to limits, play involvement of therapist, verbal involvement of therapist, meaningful play, affect, positive affect, age-appropriate play, mastery, frustration tolerance, and effort (Ray, 2011, p. 130-131). Ray (2011) also created a play therapy session summary (case note) that focuses on the following areas: significant verbalizations, limits set, toys/play behaviors, description of play, assessment/themes, conceptualization, and plan/recommendations. It can be easier to track a child's progress outside of the playroom when you can get feedback from their teachers or observe them in their school setting. This is one advantage to school-based CCPT.

Child-Centered Play Therapy in Schools

Since the 1960s play therapy has expanded outside of the private practice/community-based setting and into the schools (Perryman, 2016; Ray et al., 2015). Elementary and middle schools are developmentally appropriate place to provide play therapy to children (Perryman, 2016). School counselors are tasked with providing social-emotional needs for all their students, which can include mental health counseling or play therapy; however, they have limited time and support from administration (Christian & Brown, 2018; Perryman, 2016). Due to the student-to-school counselor ratio for 2018-2019 being 442 to 1 (American School Counselor Association, 2020), school based mental health counselors could be an effective way to provide mental health services to students (Christian & Brown, 2018), including play therapy. School-based play therapy has grown to the point where APT has created a School-Based Registered Play Therapist certification (APT, 2017).

There are a few caveats for either a school counselor or school based mental health counselor providing play therapy in schools, is that they must be trained in appropriate play therapy theories (Perryman, 2016). Additionally, either the school counselor or school-based mental health counselor must have an appropriate place to complete play therapy sessions based on the recommendations from Landreth (2012). If they cannot have a dedicated playroom, they should invest in a play therapy tote bag, with the recommended toys in Table 7. Space is only one issue that could prevent children from receiving play therapy in schools, lack of support from administrators, laws, and limitations of the school counselor's role can also be barriers (Perryman, 2016). This is when a school counselor would need to utilize their advocacy skills and educate teachers and administrators on the appropriateness of play therapy for children and its efficacy within schools. Ray (2011) suggested a few steps that school counselors could take to

address the concerns of administrators by changing play therapy to “counseling with toys” or “play counseling” (p. 205).

CCPT is one form of play therapy that Perryman (2016) recommended for use within a school. School based CCPT has been shown to be an effective intervention at increasing academics (Blanco & Ray, 2011; Blanco et al., 2012; 2015; 2017; 2019; Perryman et al., 2020), which is one area that a school counselor must address in their role. Ray et al. (2015) completed a meta-analysis of 23 studies on CCPT in schools from 1970 – 2011. The study looked at multiple areas in these studies to measure their effect. It examined internalizing behaviors, externalizing behaviors, total problems, self-efficacy, academics, and other problems. Results found that in the 23 studies, CCPT in schools had an average of 2.4 score on the Outcome Research Coding Procedure, which indicated a promising and strong quantitative evidence. Additionally, the effect size for each area ranged from .21 to .38, indicating a statistically significant result (Ray et al., 2015). The study looked at the results of CCPT in schools compared to a control and comparison group. Results found that the control group scored .38 standard deviations below participants in CCPT. Lastly, results found that participants in comparison groups scored .20 standard deviations below participants in CCPT. Whether they are using CCPT or another play therapy modality, a school-based play therapist should still follow the guidelines from Landreth (2012) have having culturally diverse toys in their playroom, to ensure minoritized children who they work with will have a various option of toys to choose from.

Multicultural Considerations

Some play therapists who use CCPT have hypothesized that due to the non-directive and non-judgmental approach, makes it naturally culturally inclusive (Davis & Pereira, 2014). Davis and Pereira (2014) suggest that the play therapist must be purposeful in including culturally

inclusive toys within the playroom and to complete multicultural trainings to keep up with the ever-changing world. In addition to this, Gonzalez and Bell (2016) wrote a case study on using CCPT for Hispanic children who have experienced grief. They suggested that CCPT play therapists also include culturally inclusive materials in waiting room, as well as in the playroom. Davis and Pereira (2014) and Gonzalez and Bell (2016) reported that there has been a lack of research specifically on CCPT with minoritized populations and call for more research on this topic. Specific research has been done utilizing CCPT with Latinx children, refugees, meta-analysis looking at its impact on minoritized children, and conceptual articles but continued quantitative and qualitative research is needed to address cultural competence.

Stewart (2019) completed a SCRD with three African American elementary students who had aggressive behaviors. All participants had a minimum of three office referrals at school for aggressive behaviors. The study used an A-B-A design with participants getting three CCPT sessions a week for 6 weeks, for a total of 18 sessions. The study used the Teacher Report Form and Brief Problems Monitor-Teacher Form to assess the impact of CCPT on their aggressive behaviors. The results showed that for one participant it was moderately effective, and for the other two it was highly effective (Stewart, 2019).

Garza and Bratton (2005) completed a study on school-based CCPT with 30 Hispanic children with behavioral problems. They had 15 participants in the experimental group and 15 in a comparison group. Participants in the experimental group completed 15 weeks of 30-minute CCPT treatment and participants in the comparison group completed 15 weeks of curriculum based small group counseling. They completed a pre and post-test using the Behavior Assessment System for Children-Parent Rating Scale. They found that participants in CCPT had a statistically significant decrease in externalizing problems compared to the comparison group.

Additionally, they found that CCPT had a moderate treatment effect on internalizing problems. In addition to these results, Garza and Bratton (2005) suggested including culturally inclusive toys in the playroom.

Post et al. (2019) looked at four meta-analysis that had been completed since 2000 to assess the impact of CCPT on minoritized children. Only one of the meta-analysis included the ethnicity of children (Lin & Bratton, 2015). The results also showed no studies that accounted for the racial identity of the therapists implementing CCPT. What the results indicated that non-directive approaches were better than directive approaches for all children but were of greater benefit for minoritized children (Post et al., 2019).

There have also been studies of CCPT internationally and with refugees in the United States. Gholamalizadeh et al. (2018) completed a study utilizing CCPT with pre-school children in Iran. Kwon and Lee (2018) completed a study utilizing group CCPT with school-aged child refugees from North Korea. Ritzi et al. (2017) completed a study utilizing intensive short-term CCPT with children in Australia. These studies will be expanded on later in this chapter. Although these studies have been published, there is still a lack of research on CCPT and minoritized children.

Yee et al. (2019) completed a content analysis looking at the trends in play therapy research in 10 years. They looked play therapy articles from 2007-2018 and focused on theory/approach, teaching/training, supervision, play therapy critique or meta-analysis, assessment/scale development, parenting, and ethics. Within each category they counted the number of articles that focused on multicultural issues. What they found was that 33 of the 412 articles they found focused on multicultural issues, which accounted for 8% of the total articles on play therapy in ten years. The topics that had the majority of multicultural articles were

theory/approach and teaching/training which accounted for 28 of the 33 articles. Although this article focused on all play therapy research, the authors reported the majority of the publications were on CCPT. The authors discussed the lack of research on multiculturalism and called for future research to focus on it (Yee et al., 2019).

Although there have been conceptual articles on the importance of cultural inclusive CCPT, there has been little research. There has been an increase in studies, but as Davis and Pereira (2014) called for, there should be more. Even though previous CCPT research has had minoritized participants in their studies, there has been a lack of research on specific populations. There has been an abundance of research on the impact of CCPT on specific symptoms, but a lack of research on different cultures within those studies.

Child-Centered Play Therapy Efficacy

CCPT dates back to the 1940s and since then there has been an abundance of research completed on its impact. As previously stated, CCPT can be implemented in schools and clinical settings (Lin & Bratton, 2015). Lin and Bratton (2015) completed a meta-analysis of 52 CCPT studies from 1995 – 2010. In the 52 studies, participants in control groups scored a half of standard deviation lower than those receiving CCPT (Lin & Bratton, 2015). The results showed an effect size of .47 with a standard error of .06 indicating a moderate treatment effect (Lin & Bratton, 2015). An additional finding was that CCPT benefited children under eight years old more than children who were older.

CCPT is established as an evidenced based approach and has been given a scientific rating of 3 for promising research evidence from the California Evidence-Based Clearinghouse for Child Welfare (2019) for anxiety, disruptive behaviors, and domestic/intimate partner violence for children ages three to 10. Additionally, the California Evidence-Based

Clearinghouse for Child Welfare (2019) gave it a medium rating for child welfare relevance. The impact of CCPT on different areas and symptoms of children has been researched, such as, academics (Blanco & Ray, 2011; Blanco et al., 2012; 2015; 2017; 2019; Perryman et al., 2020), social-emotional development (Blalock et al., 2019; Gholamalizadeh et al., 2018; Ray et al., 2013), disruptive behaviors (Bratton et al., 2013; Phipps & Post, 2019; Ritzi et al., 2017; Robinson et al., 2017; Schottelkorb & Ray, 2009; Swank & Smith-Adcock, 2018), and aggressive behaviors (Ray et al., 2009; Wilson & Ray, 2018).

Academics

Blanco and Ray (2011) completed a study to assess the impact of CCPT on the academics of at-risk 1st graders. There were 41 participants, 21 in a CCPT experimental group and 20 in a wait-list control group. The Young Children's Achievement Test was used as a pre and post-test. The experimental group participated in two-times a week CCPT sessions for eight weeks. The wait-list control group had no CCPT play therapy sessions during that time. Their results showed a large effect of .44 for change over time and a moderate effect .12 for interaction (Blanco & Ray, 2011). The results suggested that using CCPT as an intervention with students at-risk can improve their academic performance.

Blanco et al. (2012) completed a follow-up study from their original research (Blanco & Ray, 2011) to assess the long-term effects of CCPT on academics. In addition to the 16 CCPT sessions participants received during the first study, 10 more were completed over 10 weeks for the experimental group for a total of 26 sessions between the two studies. The Young Children's Achievement Test again to measure the long-term impact of CCPT on academics. They found that students who participated in 26 CCPT sessions had a statistically significant increase in their scores in the following areas: spoken language ($\eta^2=.70$), general information ($\eta^2=.62$), reading

($\eta^2=.59$), mathematics ($\eta^2=.43$), writing ($\eta^2=.43$), and early achievement composite ($\eta^2=.71$) (Blanco et al., 2012). The effect sizes indicated that CCPT had a statistically significant long-term impact on students' academics.

Continuing their research, Blanco et al. (2015) completed a study on the impact of CCPT on performance anxiety and academic achievement with 1st graders. There were 59 participants from three different title 1 schools, 29 in CCPT experimental group and 30 in wait-list control group. The participants in CCPT experimental group completed bi-weekly sessions for eight weeks, resulting in 16 sessions. The wait-list control group did not receive any treatment during the eight weeks. The Revised Children's Manifest Anxiety Scale was used to assess performance anxiety, Young Children's Achievement Test to measure academic impact, and the Woodcock Johnson III Total Brief Achievement to also measure academic impact. After analyzing the Revised Children's Manifest Anxiety Scale, a statistically significant impact was found of CCPT on performance anxiety with an effect size of .082, indicating it was a moderate effect. After analyzing the Young Children's Achievement Test results, a statistically significant impact was found of CCPT on the Early Childhood Composite of the assessment with an effect size of .264 over time and a .077 effect size for the interaction. After analyzing the Woodcock Johnson III Total Brief Achievement Assessment, there was no statistically significant impact of CCPT on their scores with an effect size of .028.

Blanco et al. (2017) completed a follow-up study from their original research (Blanco et al., 2015). In addition to the 16 CCPT sessions participants received during the first study, 10 more were completed over 10 weeks for the experimental group for a total of 26 sessions between the two studies. Similar to previous studies (Blanco et al., 2012; 2015) they used the

Young Children's Achievement Test to measure the impact of CCPT on long-term academics.

After analyzing the data, statistically significant impact was found on their academics ($\eta^2=.623$).

Expanding on this research, Blanco et al. (2019) completed another study on the impact of CCPT on academics with kindergartners. There was a total of 36 participants, 18 in the CCPT experimental group and 18 in the wait-list control group. The Young Children's Achievement Test was used as a pre and post assessment. Participants in the CCPT experimental group participated in bi-weekly sessions for six weeks. Participants in the wait-list control group did not participate in any treatment during the six weeks. The results showed that there was a statistically significant difference from the CCPT experimental group and wait-list control group.

Furthering this research Perryman et al. (2020) completed a study on the effects of 10 CCPT sessions on second-grade children who are identified as at-risk at a title 1 school. There was a total of 68 participants, 36 receiving CCPT and 32 not receiving CCPT. The Measure of Academic Progress was used to measure academic impact of CCPT. Participants in the group receiving CCPT got 10 sessions during either fall or spring semester. The results showed that participants in CCPT had significant increases in their reading performance, mathematics performance, and language usage from the beginning of the year to the end of the year. Conversely, there was no statistically significant difference between participants receiving CCPT and those who were not; however, participants getting CCPT did see an increase in test scores compared to those who were not getting CCPT. With the growing literature on the impact of school based CCPT on academics, another area that is equally as important to a child is their social emotional development.

Social-Emotional Behaviors

The development of a child's social-emotional understanding impacts their ability to grow (Blalock et al., 2019). Additionally, growing a child's social-emotional understanding helps decrease the likelihood of aggressive and violent behaviors (Blalock et al., 2019). Ray et al. (2013) studied the impact of CCPT on impairment in K-2nd grade children. The focus was on children who were withdrawn, aggressive, defiant, or poor social skills. There were 40 participants, 20 in the CCPT experimental group and 20 in the wait-list control group, but due to attrition there were 17 participants left in the experimental group. There were two phases to this study, with the first phase consisting of the CCPT experimental group participating in bi-weekly sessions for eight weeks, resulting in 16 sessions and the wait-list control group not receiving an intervention. Phase two consisted of the wait-list control group beginning CCPT and the experimental group being given the option to continue treatment. Of the participants in the experimental group, 14 of the 17 opted to continue CCPT and had additional sessions ranging from four to 26 (Ray et al., 2013). The Impairment Rating Scale-Teacher was used to assess the impact of CCPT on a student impairment. The results from phase one indicated that there was not a statistical significance between the two groups, this was attributed to a small sample size. Even though there was not statistical significance, the effect size was .06, indicating a medium significance (Ray et al., 2013). The results from phase 2 indicated a large effect in the following areas: overall impairment ($\eta^2=.40$), peer relationships ($\eta^2=.28$), teacher relationships ($\eta^2=.23$), academic progress ($\eta^2=.51$), and classroom progress ($\eta^2=.46$); and a medium effect on self-esteem ($\eta^2=.04$), in phase 2 (Ray et al., 2013) for participants in the experimental group. This study provided evidence of the effectiveness of CCPT on impairment for elementary age students.

Expanding on this evidence, Gholamalizadeh et al. (2018) completed a study with preschoolers in Iran assessing the impact of CCPT on social anxiety and communication skills. There was a total of 30 participants, 15 in experimental and 15 in control group. The Weiland Social Development Inventory and Social Anxiety Inventory for Children were used as a pre and post-test to measure CCPTs impact. The results found a $\eta^2=.44$ for communication skills and a $\eta^2=.25$ for social anxiety, indicating a large effect of CCPT. This study added to the evidence of CCPT as an effective intervention for children in their social emotional development, specifically in non-American country.

Blalock et al. (2019) continued this research by exploring the effect of individual and group CCPT on social-emotional competencies with elementary age children. There was a total of 56 participants from four title 1 schools from K-4th grade. There were three groups in this study, individual CCPT, group CCPT, and wait-list control. The individual and group CCPT both received bi-weekly 30-minute sessions for eight weeks (Blalock et al., 2019). The Social Emotional Assets and Resilience's Scales-Teacher/Parents was used to assess the impact of individual and group CCPT on participants social emotional development. The results found there was a medium effect ($\eta^2=.11$) on the Social Emotional Assets and Resilience's Scales-Parents indicating that parents who had children in the two experimental groups had statistically significant improvement than the wait-list control group. In contrast to these results, the Social Emotional Assets and Resilience's Scales-Teacher results showed a small effect ($\eta^2=.03$) indicating that teachers who had students in the two experimental groups did not have a statistically significant improvement than the wait-list control group (Blalock et al., 2019). A potential result of not developing these social emotional competencies can lead to an increase in aggressive and disruptive behaviors.

Disruptive and Externalized Behaviors

Disruptive behaviors in the classroom have long been a struggle for teachers to address (Ray, 2007). Disruptive behaviors vary wildly, but can include destroying property, distracting others, hyperactivity, aggression, and more (Bratton et al., 2013). If disruptive behaviors are not addressed at an early age, they can persist overtime (Bratton et al., 2013) and cause difficulties connecting with teachers and peers (Myers & Pianta, 2008). CCPT has long been studied for its impact on externalized disruptive behaviors in a classroom and viewed as an appropriate response to manage these behaviors (Bratton et al., 2013).

Bratton et al. (2013) completed a study using CCPT to measure the impact it had on disruptive behaviors with preschool children. There were 54 participants, with 27 of them being in the CCPT experimental group and 27 being in the active control group. The CCPT experimental group had an average of 20 30-minute sessions over the study. The active control group participated in an average of 20 30-minute reading mentoring groups over the study. The Caregiver-Teacher Report Form, focusing on the externalizing behaviors score, was used to assess the impact of CCPT compared to the reading mentoring group. Analysis showed that CCPT had a decrease on externalized behaviors and showed a statistically significant effect of time and group membership (Bratton et al., 2013). The interaction effect was .34, which showed a large effect on disruptive behaviors for participants in the CCPT group (Bratton et al., 2015). This provided evidence for the potential effectiveness of CCPT to manage externalized disruptive behaviors.

Ritzi et al. (2017) took a similar, but different approach to studying the impact of CCPT on externalized disruptive behaviors. There was a total of 24 participants, with 12 participants in the CCPT experimental group and 12 in the wait-list control group. An intensive short-term

CCPT was used, consisting of two daily sessions for 10 days with participants from Australia. The Child Behavior Checklist-Parent Report and Teacher Report Form were used to assess the impact of CCPT on externalized behaviors. The results showed that there was a large interaction with the Child Behavior Checklist-Parent form with an effect size of .322 (Ritzi et al., 2017). Additionally, participants in the CCPT group had a statistically significant decrease on the rule-breaking subscale on the Child Behavior Checklist-Parent Form (Ritzi et al., 2017). With the Teacher Report Form, participants in the CCPT had a statistically significant decrease in their externalizing problems compared to those in the wait-list control group (Ritzi et al., 2017). There was a large effect, .135, between the treatment group and time. This study expanded on the research with CCPT and implementing it with children from Australia in a short-term intensive format and showed that it was an effective intervention.

Furthering this research was Phipps and Post (2020) when they completed a SCRD to assess the impact CCPT had on externalized behaviors for low-income preschoolers. There were five participants in this A-B-A-B design. The baseline phase (phase A) had a total of five observations, the intervention phase (phase B) had 16 CCPT sessions, the second baseline phase (phase A.2) had seven observations, and the return to intervention phase (phase B.2) had a total of five 30-minute CCPT sessions. The Caregiver-Teacher Report form, focused on the externalized behavior subscales and the Index of Teaching Stress were used as the repeated measures to assess progress (Phipps & Post, 2020). The results showed that five of the participants mean externalized behavior scores dropped once starting CCPT and then increased when CCPT was removed, then decreased again, indicating that CCPT was effective for these participants (Phipps & Post, 2020). This study, using a different methodology than in the past, added to the evidence of the potential effectiveness of CCPT to manage externalized behaviors.

One form of disruptive behaviors can come as aggression (Bratton et al., 2013).

Aggression starts with children in their infancy and can lead to pushing and hitting in early years but decrease in children between ages six and 10 (Wilson & Ray, 2018). Additionally, having higher rate of aggression can lead to increased social and emotional problems across the lifespan if they are not addressed (Davenport & Bourgeois, 2008). Wilson and Ray (2018) suggested that empathy and self-regulation are important factors into controlling aggression in children.

Ray et al. (2009) completed a study measuring the impact of CCPT on aggressive behaviors with elementary students. There was a total of 41 participants, with 19 in the CCPT experimental group and 22 in the wait-list control group. Participants in the CCPT experimental group received bi-weekly sessions for seven weeks, for a total of 14 sessions (Ray et al., 2009). The Child Behavior Checklist and the Teacher Report Form was used to measure the impact of CCPT on aggressive behaviors (Ray et al., 2009). No statistical significance was found on the Child Behavior Checklist aggression scale between the CCPT and wait-list control groups, however; a moderate effect size of .11 was shown (Ray et al., 2009). A statistically significant result with time on the Teacher Report Form aggression subscale, with a large effect of .22 (Ray et al., 2009). Even though this did add to the research of showing CCPT as a potentially effective intervention for aggression in elementary students, the lack of statistically significant results on the Child Behavior Checklist could be addressed with a larger sample size and a random sampling for each group.

To assess if CCPT would be an effective intervention for children exhibiting aggression, Wilson and Ray (2018) completed a study with 71 participants at title 1 schools. Participants were split into two groups, 36 in the CCPT experimental group and 25 in the wait-list control (Wilson & Ray, 2018). The participants were overwhelmingly boys, 59 of the 71. Participants in

the CCPT experimental group participated in eight weeks of bi-weekly CCPT sessions for a total of 16 sessions. The Child Aggression Scale and Social Emotional Assets and Resilience's Scales-Teacher were used to assess the impact of CCPT on their aggression. Results found that parents reported higher levels of empathy and self-regulation, and a decrease in aggression for participants in the CCPT experimental group compared to the wait-list control group.

Attention-Deficit Hyperactive Disorder

Although this dissertation is not focused on children who have an Attention-Deficit/Hyperactivity Disorder (ADHD) diagnosis, it is important to discuss the effects of CCPT on their symptoms if discussing disruptive behaviors in the classroom. Schottelkorb and Ray (2009) completed a SCRDP on the effectiveness of CCPT on ADHD symptoms. There were four participants from K-5th grade. The Direct Observation Form (DOF), Conner's Teacher Rating Scale-Revised, and Teacher Report Form were used to assess the impact of CCPT (Schottelkorb & Ray, 2009). The result indicated that two of the participants had a clear decrease in externalized behaviors with the CCPT intervention, and two were not clear.

Robinson et al. (2017) bolstered this research and used a SCRDP with three first grade students with ADHD. Participants completed a total of 18 30-minute CCPT sessions, meeting three times a week for six weeks (Robinson et al., 2017). The DOF was used to assess the impact of CCPT on participants (Robinson et al., 2017). The results of the study showed that participants had a decrease in oppositional and externalized behaviors had the biggest change for participants (Robinson et al., 2017).

Swank and Smith-Adcock (2018) continued this research by completing a study focusing on the effectiveness of CCPT and nature-based CCPT impact on ADHD symptoms. An A-B research design was implemented. There was a total of eight participants with ADHD who were

randomly assigned to CCPT, nature-based CCPT, or wait-list control (three in CCPT, in nature-based CCPT, and two in wait-list control). The CCPT and nature based CCPT group both participated in a total of 12 sessions over 12 weeks. The DOF, Teacher Report Form, and Child Behavior Checklist were used as repeated measures to assess impact of each group (Swank & Smith-Adcock, 2018). Of the participants in the CCPT group, one of them it was debatably effective and two it was effective for increasing on-task behavior (Swank & Smith-Adcock, 2018). Of the participants in the nature-based CCPT group one it was debatably effective, one effective, and one very effective in increasing on-task behavior (Swank & Smith-Adcock, 2018).

Even though these previous studies did not specifically focus on children who have been exposed to ACEs, disruptive behaviors, negative impacts on academics, social emotional development, and aggressive behaviors are symptoms for children who have experienced trauma (De Bellis & Zisk, 2014; Post et al., 2019). CCPT has been shown to be effective with these symptoms (Blalock et al., 2019; Blanco & Ray, 2011; Blanco et al., 2012; 2015; 2017; 2019; Bratton et al., 2013; Gholamalizadeh et al., 2018; Perryman et al., 2020; Phipps & Post, 2019; Ray et al., 2009; Ray et al., 2013; Ritzi et al., 2017; Robinson et al., 2017; Schottelkorb & Ray, 2009; Swank & Smith-Adcock, 2018; Wilson & Ray, 2018). Therefore, this dissertation makes the argument that CCPT could be an effective intervention for children who have been exposed to ACEs.

Child-Centered Play Therapy and Adverse Childhood Experiences

There has been an increase in the awareness, publications, and research of ACEs impact on children. Researchers are working to find an effective and accessible treatment modality to implement with children who have been exposed to ACEs. There have been proposed theories and interventions to address childhood trauma such as theraplay, TF-IPT, TF-CBT, and CCPT

(Booth & Winstead, 2016; Gil, 2012; Lenz & Hollenbaugh, 2015; Ray et al., 2020). Theraplay has evidence to support it as an effective intervention, but the cost and time of training is extensive (Booth & Winstead, 2016). Trauma-focused integrated play therapy is a well-structured approach that integrates many theories and interventions, but there is a lack of research of its efficacy (Gil, 2012). Some researchers have posited that TF-CBT is superior to CCPT due to the research of its efficacy (Scheeringa, 2020a; 2020b); however, the one study to compare CCPT and TF-CBT showed no statistically significant group differences (Schottelkorb et al., 2012). This study will be discussed later in this dissertation. While there has been an increase in the discussion of ACEs effects on children, there has been a lack of experimental research focusing on CCPT's effect on children who have been exposed to ACEs (Gutermann et al., 2016; Haas, 2017; Humble et al., 2019; Kram, 2019; Parker et al., 2021). Due to the accessibility and use of CCPT by play therapist in the field (Lambert et al., 2007), exploring the efficacy of it with children who have been exposed to ACEs is important.

Since theraplay and CCPT are two modalities infused into NMT, they both could be appropriate for using within the NMT. CCPT aligns well with the NMT recommended by Perry and Szalavitz (2017) and the stages recommended by Gaskill (2007). CCPT could be appropriate for what Gaskill (2007) referred to as the structuring the environment with the consistency in language and responses used in CCPT, along with the length of sessions, and the limit setting. CCPT could be appropriate for the engaging the child stage recommended by Gaskill (2007) and he recommended the verbal and nonverbal skills used in CCPT as an effective strategy for this stage. CCPT could be appropriate for the nurturing the child stage from Gaskill (2007) specifically with the activities such as: comforting when emotionally upset, soothing when upset, monitoring child's frustration level, being emotionally available, and free play. Although CCPT

does not engage a child in physically comforting like other approaches, such as theraplay, they still validate and offer emotional support as they reflect the child's feelings, which Ray (2011) states can help a child become aware of, accept, and express their feelings. Lastly, CCPT could be appropriate for the challenging the child's growth stage from Gaskill (2007) with the CCPT skill of returning responsibility and not helping the child every time that they need help. CCPT has many skills that could make it an appropriate intervention to use with NMT to address neurological implications of ACEs. Although this dissertation is proposing CCPT could be helpful with NMT, there has been little research of CCPT with children who have been exposed to ACEs.

Humble et al. (2019) completed a meta-analysis on seven studies from 1988 that utilized some form of CCPT to address symptoms of trauma. Two of the studies focused on CCPT group play therapy and the other were on individual. Additionally, they found that one of the studies (Schottelkorb et al., 2012) used the CCPT manual from Ray (2011). They found a lack of consistency in the studies and were unable to recommend CCPT as an effective treatment modality for children who have been exposed to ACEs. They did provide five recommendations for future research. First, find ways to reduce attrition. Second, use similar outcome measures in studies so results are easier to compare. Third, use a more rigorous research method and protocol, like Schottelkorb et al. (2012). Fourth, researchers should begin report effect sizes in their results. Fifth, they encourage future research to describe the playroom and play materials in more depth (Humble et al., 2019).

With these considerations in mind, research and conceptual articles has been published on individual CCPT with children who have been exposed to ACEs, such as: domestic violence (Hall, 2019; Kot et al., 1998), sexual abuse (Reyes & Asbrand, 2005; Scott et al., 2003),

homelessness (Baggerly, 2003; Baggerly & Jenkins, 2009), foster care (Clausen et al., 2012), refugees (Killian et al., 2017; Kwon & Lee, 2018; Schottelkorb, 2012;), natural disasters (Dungan et al., 2010; Jordan et al., 2013; Shen, 2002) and multiple ACEs (Haas, 2017; Kram, 2019). There has been a lack of research on other specific ACEs such as: emotional abuse, physical abuse, substance abuse in the household, mental illness in the household, parental separation/divorce, incarcerated member of household, emotional neglect, and physical neglect.

Parker et al. (2021) completed a systemic literature review on CCPT and trauma. Through their methodology they found 32 articles published from 1999-2018. Their inclusion criteria consisted of studies utilizing some form of CCPT, including child-parent relationship therapy, child-teacher relationship training, group CCPT, and individual CCPT with children who have had at least one ACE. Additionally, there needed be some group comparison between groups with no treatment, treatment as usual, or alternative treatment and used quantitative methods to assess the impact. Of the 32 articles that they found, only seven of them utilized individual CCPT as the intervention. Another important finding was that 12 studies utilized the Child Behavior Checklist and four studies that use the Teacher Report Form as ways to measure impact of CCPT on trauma related behaviors. Although there is a lacking in CCPT research on children who have been exposed to ACEs, there is still some evidence to suggest that CCPT could be an appropriate intervention.

Play Behaviors of Children Exposed to Adverse Childhood Experiences

Previous research has focused on the impact of ACEs on a child's play (Cooper, 2000; Findling et al., 2006; Myers et al., 2011), with the creation of the Trauma Play Scale (TPS) that used observations of children who have experienced trauma playing and identified themes that relate to trauma. There are five domains in the TPS: intense play, repetitive play, play disruption,

avoidant play, and expression of negative affect (Myers et al., 2011). Intense play is defined as compulsive play that lacks joy or spontaneity, and focused (Myers et al., 2011). Repetitive play is defined as play behaviors that are played out the same way every time and has specific meaning to them (Myers et al., 2011). Play disruption is defined as when the child connects with the play so intensely that they disassociate (Myers et al., 2011). Avoidant play is defined as when the child actively works to avoid the counselor (Myers et al., 2011). Expression of negative affect is defined as either not expressing feelings or expressing negative feelings (anxiety, anger, sadness, fear, etc.) (Myers et al., 2011). These can be common themes in play that children who have been exposed to ACEs could show in the playroom.

Witnessing or Experiencing Abuse

There have been multiple studies focusing on the how CCPT impacts children who have experienced trauma. One area that the ACEs covers is witnessing domestic violence. One of the first articles written from Kot et al. (1998) focused on CCPT with children who have witnessed domestic violence. There were 22 participants who were living in a domestic violence shelters in a large metropolitan area, with 11 in the experimental group and 11 in the control group. The experimental group completed 12 45-minute CCPT sessions over three weeks. The Joseph Preschool and Primary Self-Concept Scale, Child Behavior Checklist, and Children's Play Session Behavior Rating Scales were used to assess the impact of CCPT. The results showed that the experimental group had a highly significant ($p < .0001$) increase in their self-concept compared to the control group. The experimental group showed fewer overall behavior problems ($p < .01$) compared to the control group. Lastly, the experimental group had an increase in security and comfort with the counselor, and more nurturing, constructive, and creative play themes. This

suggested that using CCPT for children who have witnessed domestic violence could benefit from CCPT.

Another area that is covered on the ACEs is sexual abuse. The effect of CCPT on children who have experienced sexual abuse has been studied. Reyes and Asbrand (2005) completed a longitudinal study to assess the impact of play therapy on children who have experienced sexual abuse. There were 18 participants involved in the study over nine months, with all getting treatment. Participants completed once a week 50-minute play therapy sessions for nine months. The Trauma Symptom Checklist for Children was used as for the pre and post-test to examine the impact of play therapy on their symptoms. The results showed participants had a decrease in their trauma symptoms over the nine months, indicating play therapy could be an effective treatment for children who have experienced sexual abuse. Limitations of this study included lack of control group and lack of discussion on what therapeutic approach was used.

Reyes and Asbrand (2005) were not the first to study this, Scott et al. (2003) examined the effect of CCPT with children who have sexual abuse. There was a total of 26 participants, with all receiving the treatment (Scott et al., 2003). Participants completed between seven and 13 CCPT sessions during the study. The Abuse Behavior Checklist, Joseph Preschool and Primary Self-Concept Screening Test, Behavior Assessment System for Children-Parents Rating Scale, Social/Environmental Update, and Child-Centered Play Therapist Rating Scales were all used to evaluate the effect of the intervention. The results indicated that there was mixed support for CCPT with children who have experienced sexual abuse. Limitations of this study included the number of sessions being too small, too many assessments, and lack of control group. These studies showed that there are mixed results of using CCPT with children who have been sexually

abused. Children can often be removed from their home and placed in foster care if they are sexually abused (Clausen et al., 2012).

Home Insecurity

Children who experienced sexual and other forms of abuse, might be removed from their home and placed in foster care. When children are removed from the home and become a youth-in-care, these becomes another trauma they endure (Clausen et al., 2012). A study was completed that focused on the impact of a relationship-based play therapy with children who were in foster care (Clausen et al., 2012). There was a total of 20 participants in the study, with all receiving relationship-based play therapy. The results showed that long-term relationship-based play therapy with children in foster care had a statistically and clinically significant reduction across a variety of domains for their mental health. This indicated that some form of relationship-based play therapy could be an effective intervention for children within foster care.

Homelessness is not listed on the ACEs but is a traumatic life event that children might encounter (Baggerly, 2003). Baggerly (2003) hypothesized that using CCPT would be an appropriate intervention to use with children who are homeless. With most counselors being White, Baggerly (2003) suggested that they all ensure they have worked through the White Racial Identity Development stages due to a large number of children who are homeless being minoritized. Furthermore, it was suggested that counselors be mindful of Maslow's Hierarchy of Needs and that children might need snacks (fruit, crackers, and juice) in the playroom to ensure they have energy to engage in play (Baggerly. 2003).

This hypothesis was tested by Baggerly and Jenkins (2009) in a quantitative study. There was a total of 36 participants from a school for children who are homeless, with all receiving CCPT. The range of CCPT sessions completed for each participant were 11 to 25, with the

average being 14. The Boxall Profile was used to assess the impact of CCPT on participants developmental and diagnostics aspects with children who have emotional, behavioral, or social difficulties. The results showed a statistically significant improvement on the participants internalization of controls, but not in organization of experience. This indicated that CCPT was effective in some areas for participants, but not in all. The reason for this could have been the lack of uniformity with sessions completed by each participant.

Human Made and Natural Disasters

There has been an increase in refugees in the last 30 years coming to the United States of America, and they face a different set of challenges than intentional immigrants (Killian et al., 2017). Refugees are dealing with past traumatic experiences from their home country and the uncertainty of moving to a new country. Additionally, with the current political landscape the world that refugees enter in the United States can include additional stressors that were not there in previous years. Killian et al. (2017) wrote a conceptual article that CCPT could be an effective form of treatment for Somali refugees due to the flexibility within it for cultural toys and its tenets of accepting the child for who they are.

Research was completed on the impact of group CCPT with North Korean refugees (Kwon & Lee, 2018). Kwon and Lee (2018) had four second and third girl participants who were North Korean refugees. Each participant was in a 40-session CCPT group therapy. They used the Korean-Wechsler Intelligence Scale for Children-IV, the Rorschach test, a sentence completion test, a house-tree-person drawing, and a kinetic family drawing. Additionally, teachers were interviewed on the child's progress. The results showed that the participants had a decrease in anxiety and depression, improvements in attention and more age-appropriate play (Kwon & Lee, 2018). Additionally, participants who had internalized behavior problems had an increase in

appropriate emotional release (Kwon & Lee, 2018). Participants who had externalized problems had a decrease in aggression and increase in empathy (Kwon & Lee, 2018).

Schottelkorb et al. (2012) completed a randomized, controlled trial comparing CCPT and TF-CBT with refugee children and found that both were effective in reducing their traumatic symptoms. They had a total of 31 participants from three elementary schools who had full or partial criteria for PTSD designation based on the University of California, Los Angeles (UCLA) PTSD index for *Diagnostic and Statistical Manual of Mental Disorders-IV* (DSM-IV). The participants were refugees from the following countries: Burundi, Congo, Kenya, Liberia, Rwanda, Somalia, Tanzania, Burma, Nepal, Russia, Bosnia, Afghanistan, Iraq, Turkey, and Uzbekistan. Participants were randomly assigned to CCPT group or TF-CBT group. They had participants report their own PTSD symptoms for the UCLA PTSD Index for DSM-IV and Parent Report of Posttraumatic Symptoms to assess the impact of the interventions on the groups. A total of 14 participants were assigned to the CCPT group and 17 to the TF-CBT group. Participants in the CCPT group got two 30-minute sessions for 12 weeks for a total of 24 sessions. Participants in the TF-CBT group got once a week 30-minute TF-CBT sessions, their parents got once a week 30-minute TF-CBT session, and once a week 30-minute joint TF-CBT session. Results indicated a statistically significant decrease in symptoms for both CCPT and TF-CBT participants, but there were no differences between the groups (Schottelkorb et al., 2012).

There has been an increase in natural disasters in the last 20 years and children who experience them. There have been a few case studies and conceptual articles written on the potential efficacy of CCPT with children who have experienced a natural disaster (Dungan et al., 2010; Shen, 2002; Jordan et al., 2013), but there has been a lack of empirical research on its impact. Jordan et al. (2013) synthesized the literature on CCPT and natural disasters made the

argument that it is an appropriate theory for this population based on it being in a safe environment, with a focus on warmth, acceptance, and freedom to work through their response to the natural disaster.

Multiple Adverse Childhood Experiences

Previous studies focused on children who have been exposed to specific ACEs (homelessness, sexual abuse, domestic violence), and two on multiple ACEs. Haas (2017) completed a SCRDP pilot-study examining if CCPT has an impact with children who were exposed to four or more ACEs. There was a total of two participants in the study, both with eight ACE exposures. The SCRDP was an A-B-A design with 12 weeks of bi-weekly CCPT sessions during phase B for a total of 24 sessions. The Strengths Difficulties Questionnaire was used as the repeated measure and Trauma Symptoms Checklist for Young Children was used as a pre—post-assessment. The results indicated that for one participant they had a quick improvement during the intervention phase, and the other one had a delayed response and did not begin improvement until session 19.

Adding to the research, Kram (2019) completed a quantitative study on the impact of CCPT with children who have been exposed to multiple ACEs and the effect on their impulsivity and inattention. There was a total of 34 participants, with 17 in experimental group and 17 in the wait-list control group. The range of ACEs exposed to was two to 10, with the average being 3.82. The experimental group participated in a total of 16 CCPT sessions over eight-weeks. The Attention Deficit Disorder Evaluation Scale and the ADHD subscale of the DOF were completed as pre-posttest assessments. The results showed a statistically significant interaction between group and time and a large effect size of .18 for the Attention Deficit Disorder Evaluation Scale. The results showed a statistically significant interaction between treatment group and time with a

large effect size of .16 for the ADHD subscale of the DOF. The results indicated that CCPT might be an effective intervention to decrease externalized behaviors with children who have been exposed to multiple ACEs.

Summary

To summarize, ACEs have a large mental, physical, and monetary cost to children and adults throughout the world, with minoritized populations being disproportionately affected (Bellis et al., 2019; CDC, 2020; Felitti et al., 1998; Gruhn & Compas, 2020; Hughes et al., 2017; Merrick et al., 2018; Ray et al., 2020; Sacks & Murphy, 2018). Much of the previous research has focused on the impact ACEs have on adults and potential interventions to help address potential negative health outcomes. Studies have begun to focus on the impact of ACEs on children and have found impact emotional dysregulation, impulsivity, avoidance, academics, social emotional delays, and externalized behaviors in and out of school (Clarkson Freeman, 2014; Gruhn & Compas, 2020; Jimenez et al., 2016; Ray et al., 2020). There has been a call for early screening and treatment for ACEs to limit the short and long-term impacts of them, but a lack of research on early interventions that are effective (CDC, 2020; Finkelhor, 2018; Letich, 2017; Melville, 2017; Ray et al., 2020). CCPT has been shown to be effective with externalized behaviors, emotional dysregulation, impulsivity, avoidance, academics, social emotional delays, and externalized behaviors (Blalock et al., 2019; Blanco & Ray, 2011; Blanco et al., 2012; 2015; 2017; 2019; Bratton et al., 2013; Gholamalizadeh et al., 2018; Perryman et al., 2020; Phipps & Post, 2019; Ray et al., 2009; 2013; Ritzi et al., 2017; Robinson et al., 2017; Schottelkorb & Ray, 2009; Wilson & Ray, 2018). This dissertation explored the use of CCPT as a potentially effective early treatment for children who have been exposed to ACEs.

Chapter III: Research Method and Procedure

Methods

Multiple symptoms can happen after a child is exposed to adverse childhood experiences (ACEs) that effect their social-emotional development in and out of school, such as aggression, disruptive behaviors, impulsivity, and poor academic performance. There needs to be an evidenced based early treatment to address the childhood symptoms of exposure to ACEs. Child-centered play therapy (CCPT) has the potential to be that intervention. The purpose of this dissertation was to explore the effectiveness of using CCPT on externalized behaviors with elementary students who have been exposed to ACEs who were attending a school for students who have experienced trauma. This dissertation used a single-case research design (SCRD) to examine the impact of CCPT on externalized behaviors in the classroom for children exposed to ACEs. The researcher worked to follow the recommendations from Humble et al. (2019) on researcher focused on CCPT and ACEs to ensure that the study adds to the research. The recommendations were: reduce attrition, use instruments that have been used in CCPT and trauma research in the past, have a rigorous methodology, report an effect size, and provide a description of the playroom and materials (Humble et al., 2019).

The specific externalized behaviors evaluated are frequently related to ADHD behaviors such as: disruptive behaviors, ability to stay on task, and impulsivity. The researcher used a SCRD design of A-B with a maintenance phase to assess the impact of CCPT on their externalized behaviors in the classroom.

Research Question

What is the impact of CCPT on externalized behaviors, Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms (disruptive behaviors, ability to stay on task, and impulsivity), in the classroom of K-2nd grade students who have been exposed to ACEs?

Research Design

To answer the research question, the researcher used an A-B with maintenance SCRD over 17 weeks. There has been a call for more SCRD within the counseling field (Hott et al., 2015; Lenz, 2015; Ray, 2015), specifically with CCPT (Pester et al., 2019). Using SCRD with CCPT can be an effective methodology due to the small sample sizes within play therapy research and ability to measure if there is an immediate impact of an intervention (Pester et al., 2019). SCRD is a rigorous research method that uses continuous measures over the course of the study to assess the impact of a specific intervention on a participant's behavior (Kazdin, 2019; Ray, 2015). SCRDs are split up into phases, and the most commonly used in counseling research are A-B and A-B-A. These phases are broken up by A signifying no intervention and B is where the intervention is implemented (Kazdin, 2019; Ray, 2015) with the continuous assessment happening in each phase. This structure allowed the researcher to assess the impact of the intervention and control for extraneous variables (Kazdin, 2019). This dissertation used an A-B with maintenance SCRD design over 17 weeks with five participants who had staggered starts to phase B to create experimental control.

Participants

The researcher received Institutional Review Board (see Appendix A) approval to begin the dissertation and then began recruiting. Participants for this dissertation were recruited from a first-year charter school in the southern United States that focuses on children who have

experienced trauma. The school is K-3rd grade, with ten students per class with one teacher and two paraprofessionals in each class. The teachers received trauma specific training for classroom management in trust-based relationship intervention and conscious discipline.

The selection criteria for participants for this dissertation needed to meet the following: 1) enrolled at the school; 2) score of one or higher on the ACEs; and 3) not participating in other forms of counseling. Participants were recruited from this school based on the high number of ACEs experienced by children in this state and its specific focus on trauma. One in seven children experience three or more ACEs in Arkansas, compared to the national average of one out of 10 (Arkansas Department of Human Services, n.d.).

Participants were recruited via an email to guardians inviting their child to participate in the study (see Appendix B). An incentive of a \$20 Amazon gift card at the beginning of the study and \$20 at the end of the study was offered to recruit more participants. A total of 10 participants guardians were contacted to participate in the study. Of the 10 guardians contacted, seven responded and three declined to participate. The researcher then met with the guardians of all potential participants and provided information, answered questions, and sought consent for their child to participate in the study (see Appendix C). This dissertation aimed to recruit three to six participants and successfully recruited seven participants. Of the seven participants recruited, two were lost to attrition before the study started. One of the participants who left the study enrolled in services through a local community-based counseling agency. The other participant left the study to return to see their private practice therapist. This left five participants in the study. Individual information for each participant is listed below. Pseudonyms were used to maintain confidentiality.

Mike

Mike was a 6-year-old White American male kindergartner who split time between living with his biological father and his biological mother. He would spend one week with his mother and the next week with his father. Both of Mike's biological parents were in relationships with new significant others who also had children (6-years-old and 12-years-old). Mike had limited and inconsistent history with mental health treatment and play therapy, with the most recent attempt being six months before he participated in the study. Mike had no history of mental health diagnosis or psychotropic medication usage. Background information was provided by Mike's father and mother. Mike had exposure to five ACEs on the expanded questionnaire and original 10-question survey. Mike had been exposed to the following: parental divorce, lived with someone who was depressed or mentally ill, food insecurity, been insulted or humiliated by an adult in the household, and had a parent or other adult in the household physically assault him.

Lincoln

Lincoln was an 8-year-old Bi-racial (Black and White) male 2nd grader who lived with his adoptive parents. He was adopted at age five with his older biological sister. Lincoln had limited and inconsistent history with mental health treatment and play therapy, with the most recent attempt being one year before he participated in the study. He had previous mental health diagnoses of Oppositional Defiant Disorder, Reactive Attachment Disorder, Intermittent Explosive Disorder, and ADHD. He had previous history of being prescribed the following medications: Clonidine, Seroquel, Concerta, and Celexa. Background information was provided by Lincoln's adoptive mothers, who clarified that all reported ACEs happened before he was adopted. Lincoln had a total of 14 ACEs on the expanded questionnaire and nine on the original

10-question survey. Lincoln had been exposed to the following: parental divorce, foster care, being adopted, lived with someone who was depressed or mentally ill, lived with someone who was previously incarcerated, lived with someone with a drinking problem, lived with someone who had a problem with street or prescription drugs, had adults in the household who were too inebriated to take him to the doctor, food insecurity, been insulted or humiliated by an adult in the household, had a parent or adult in the household make him feel afraid that he might be physically hurt, had a parent or other adult in the household physically assault him, often heard or witnessed domestic violence, and often heard someone being beaten up, stabbed, or shot in real life.

Justin

Justin was a 9-year-old Native American male 2nd grader who lived with his adopted parents. Justin was adopted at three months old by his adoptive parents. He had no experience with mental health or play therapy treatment. He had the following diagnoses: Fetal Alcohol Syndrome, Childhood Apraxia of Speech, Dyslexia, and Attention Deficit Disorder. He has taken Focalin for one year before he participated in the study and remained on it throughout the study. Background information was provided by Justin's adopted mother, who clarified that all reported ACEs happened before he was adopted. Justin had a total of six ACEs on the expanded questionnaire and four on the original 10-question survey. Justin had been exposed to the following: foster care, being adopted, lived with someone who was depressed or mentally ill, lived with someone who was previously incarcerated, lived with someone with a drinking problem, and lived with someone who had a problem with street or prescription drugs.

Ernie

Ernie was a 6-year-old White male 1st grader who lived with his adoptive parents. Background information was provided by Ernie's adopted mother, who clarified that all reported ACEs happened before he was adopted. Ernie was adopted at age four and had lived with adoptive parents two years before they adopted him. He had limited inconsistent history with play therapy and counseling. Ernie had a total of 16 ACEs on the expanded questionnaire and eight on the original 10-question survey. Ernie was exposed to the following: parental divorce, foster care, being adopted, lived with someone who was depressed or mentally ill, felt that no one in his family loved him or thought he was special, lived with someone who was depressed or mentally ill, lived with someone who was suicidal, lived with someone who was previously incarcerated, lived with someone with a drinking problem, lived with someone who had a problem with street or prescription drugs, had adults in the household who were too inebriated to take him to the doctor, felt like his family did not look out for each other, food insecurity, been insulted or humiliated by an adult in the household, had a parent or adult in the household make him feel afraid that he might be physically hurt, had a parent or adult hit him so hard that it left a mark or he was injured, had an adult or person at least five years older than him touched or fondled his body in a sexual way, and had an adult or a person at least five years older than him attempted or actually had oral or anal intercourse with him.

Kobe

Kobe was a 6-year-old White male kindergartener who lived with his biological mother. Kobe's father had parental rights terminated and was no longer allowed to see him. Background information was provided by Kobe's mother. Kobe had previously been diagnosed with ADHD and anxiety disorders. He had received counseling seven months before he began the study.

Kobe was prescribed and took Guanfacine throughout the entire study. Kobe had a total of eight ACEs on the expanded questionnaire and seven on the original 10-question survey. Kobe was exposed to the following: parental divorce, lived with someone who was depressed or mentally ill, lived with someone who was previously incarcerated, lived with someone with a drinking problem, lived with someone who had a problem with street or prescription drugs, been insulted or humiliated by an adult in the household, had a parent or adult in the household make him feel afraid that he might be physically hurt, and often heard or witnessed domestic violence.

Researcher Training

Ray (2011) suggested that when using CCPT for research, the researcher needs appropriate training in CCPT. The researcher for this dissertation had a master's degree in counseling, has completed all educational training and supervised hours to obtain their Registered Play Therapist credential. They had 75 hours of coursework specifically in CCPT and followed the guidelines outlined in the CCPT manual (Ray, 2011). The researcher was supervised by a Registered Play Therapist – Supervisor. The researcher followed the protocol from Ray (2011) and had their supervisor completed the Child-Centered Play Therapy – Research Integrity Checklist (CCPT-RIC) to ensure fidelity and completed play therapy session summary (case notes) after each session.

Ray (2011) and Landreth (2012) suggest specific toys being in the playroom when using CCPT, as previously described. The researcher developed their toys for their playroom from the lists for appropriate toys for CCPT and created a playroom for the study. See Table 8 for a list of toys that were used in the playroom. Additionally, the size of the playroom was 12 feet long by 7 feet wide.

Table 8. Toys in Playroom

Toys in Playroom		
Animals	Crayons	Knife
Army soldiers	Cutable fruit	Medical supplies
Babies	Dinosaurs	Playdoh
Balls	Dollhouse	Pots, pans, plates, cups
Baton	Dollhouse furniture	Puppet theater
Bendable dollhouse figures	Dress-up	Sandbox
Blankets	Drum	Scissors
Boat	Eight puppets	Seashells
Bop-bag	Groceries	Shark puppet
Car keys	Guitar	Silverware
Cars	Handcuffs	Snakes
Cash register	Handgun	Stuffed dog and cat
Cleaning toys	Insects	Tape
Colored pencils	Kinetic sand	Tools
Construction paper	Kitchen	Two phones
		Wooden blocks

Instrumentation

There were multiple assessments and surveys used by the researcher to measure the impact of the CCPT intervention and to ensure fidelity. The researcher used the Direct Observation Form (DOF) to establish a baseline and measure the impact of the intervention. The Trauma Symptom Checklist for Young Children – Screening Form (TSCYC-SF) was used as a pre and post-test to measure their trauma symptoms as reported by their parents. The ACEs survey was used for selection criteria. Lastly, the CCPT-RIC was used by the researcher's supervisor to ensure the CCPT skills were being used correctly.

Direct Observation Form

The DOF is a 10-minute observation assessment used in schools for children ages six to 11 to measure their on-task behaviors. In order to complete the DOF, there needs to be a 10-minute observation of a child in a school setting (in-class, recess, lunch). After completing the 10-minute observation, the observer completes the DOF, which includes 89 4-point Likert scale

questions from 0 to 3 and narrative section, focused on the child's behavior or if they are on or off task. The 0 to 3 likert scale is scored as follows for the behaviors being measured during the observation: 0=no occurrence, 1=very slight or ambiguous occurrence, 2=definite occurrence with mild to moderate intensity/frequency and less than three minutes in total duration, and 3=definite occurrence with severe intensity, high frequency, or three or more minutes total duration (McConaughy & Acenbach, 2009). The on-task off-task behaviors are measured with 10 questions. The questions have dichotomous options of "on-task" or "off-task." During the 10-minute observation the observer marks if the child is on-task or off-task for the last five seconds of each minute during the observation.

The DOF needs to be completed a minimum two times in one week after which all scores are averaged for the participants score for the week. The observations should be completed at different times during the day rather than the same time in order to gather data in multiple settings in schools to have a more representative observation. The DOF subscales focus on sluggish cognitive tempo, immature/withdrawn, attention problems, intrusive, oppositional, ability to stay on task, ADHD, and total problems. Inter-rater reliability (IRR) for the DOF ranges from .70 to .97, with an average of .80 across the syndromes and total problems, with an overall average of .79 for all problem scales, which indicates a high inter-rater reliability (McConaughy & Acenbach, 2009). Content validity for the DOF was established from the Child Behavioral Checklist and Teacher Report Form, due to the overlap in the forms (Tsai, 2018). Due to the DOF's content validity being established from the Child Behavioral Checklist and Teacher Report Form, the researcher felt confident that it would be an accurate measure for trauma behaviors based on previous studies that measured the impact of CCPT on trauma related behaviors and that utilized these assessments (Parker et al., 2021). For the purposes of this

dissertation, the researcher gathered data on the ADHD subscales and on-task off task behaviors, which has been completed in previous studies on CCPT and trauma (Kram, 2019). The ADHD scale had a total of 23 questions focused on disruptive behaviors, ability to stay on task, and impulsivity.

The researcher originally planned to record two to three 10-minute blocks of classroom learning for each participant and have outside observers complete the DOF; however, this became logistically difficult and it was decided to recruit observers from within the school. The researcher trained two observers, the school counselor and school-based mental health professional, on how to complete observations using the DOF. Due to COVID it was difficult to bring in an outside observer who did not work at the school to limit potential exposure to students. The researcher went through the DOF manual with the observers and then showed them videos of classroom lessons and had them complete the forms on students in the videos. The researcher also watched the video and completed DOFs on the same children to establish IRR. IRR was established at .87 between the researcher and the two observers. The school counselor and school-based mental health professional had an IRR of .90. The school counselor completed the 87% of the observations while the school-based mental health professional completed 13%.

The DOF was completed two to three times a week, during each phase, for each participant by the two observers. They were both blinded to when participants had started the study. The researcher planned the observations each week during intervention phase to ensure that each observation occurred after a CCPT session and before the next CCPT session. Additionally, the researcher ensured that each week there were observations in the afternoon and in the morning. The researcher planned that there would be as many observations as there were sessions per week. For example, if there a participant has two sessions in a week, there will be

two observations completed. The researcher adjusted the schedule as needed based on absences, school programming, school closing, testing, or other instances that might have disrupted the schedule. Although the DOF calls for an average score for the week, the researcher decided to use each individual observation as data points due to the unique aspects and data analysis, that will be discussed later in this section, of SCRD.

The researcher signed a licensing agreement with the owner of the DOF (Achenbach System of Empirically Based Assessment [ASEBA]) to electronically create the assessment for the study. The DOF has been used in previous research on the effects of CCPT on children who have been exposed to ACEs (Kram, 2019) and in CCPT research (Robinson, 2017; Schottelkorb & Ray, 2009; Swank & Smith-Adcock, 2017), thus it falls in line with the recommendations by Humble et al. (2019).

Adverse Childhood Experiences Survey

The ACEs is a 10-question survey given to adults to understand if they experienced any traumatic experiences as a child (Felitti et al., 1998). The ACEs covers items such as physical, sexual, and emotional abuse, as well as emotional and physical neglect, mental illness, substance abuse, separation/divorce, domestic violence and incarceration (Felitti et al., 1998). In the last 10 years the ACEs has been expanded by researchers to include additional questions regarding incarcerated parents, expanded drug and alcohol use questions, family support, food insecurity, expanded emotional abuse, and expanded physical abuse (Ray et al., 2020). These exposures are important for researchers to know, so they can better understand the long-term impacts of them. Despite there being no psychometrics published on the ACEs, it has been cited in numerous peer-reviewed journals and used by the CDC over the last 25 years. Since the ACEs is intended for adults, the survey is written in past tense; however, previous studies have changed the

questions to present tense (Clarkson Freeman, 2014; Haas, 2017; Kram, 2017; Ray et al., 2020) so parents could answer the questions about their children. This dissertation used the updated 25-question ACEs used by Ray et al. (2020), which includes: expanded drug and alcohol use questions, family support, food insecurity, expanded emotional abuse, and expanded physical abuse. The expanded ACEs from Ray et al. (2020) has 11 yes or no questions, and 14 Likert scale questions. The scoring for ACEs gives the respondents a 1 for a positive ACE and a 0 for a negative response.

The ACEs from potential participants were gathered from archival data that the school had from the initial paperwork for students. The ACEs interviews were completed by master's level counseling students in a crisis counseling course before the school year started. The ACEs has been used in previous CCPT and trauma research (Haas, 2017; Kram, 2019), thus this will meet the recommendations of Humble et al. (2019).

Trauma Symptom Checklist for Young Children – Screening Form

The TSCYC-SF is a 20-question assessment meant to be completed by the parents of children ages three to 12 who have experienced trauma to assess if they are at risk for clinically significant psychological disturbance (Briere & Wherry, 2016). There are two subscales: general trauma with 12 questions and sexualized trauma with eight questions. The TSCYC-SF was developed from the Trauma Symptom Checklist for Young Children which is a 90-question assessment. The TSCYC-SF was developed to shorten the amount of time it takes to complete, can be quickly scored, and does not require an advanced degree. The TSCYC-SF was normed on 750 children ages three to 12 with internal consistency reliability coefficients being at the good to excellent range and the test-retest reliability being .80 ($p < .001$) for each scale (Briere & Wherry, 2016). The TSCYC-SF was chosen for this dissertation due to the length and time

needed to complete. The researcher wanted to provide participants' guardians with a short assessment and did not want to overwhelm them with long questionnaires which could lead to respondent fatigue. The TSCYC-SF and Trauma Symptom Checklist for Young Children has been used in previous research on the effects of CCPT on children who have been exposed to ACEs (Haas, 2017; Reyes & Asbrand, 2005), thus it falls in line with the recommendations by Humble et al. (2019). The TSCYC-SF was completed before the beginning phase A for and at the end of the study for a pre-post assessment.

Client Centered Play Therapy Research Integrity Checklist

The Play Therapy Skills Checklist (PTSC) was developed at the University of North Texas to assess play therapists' skills in sessions, then began to be used to check treatment fidelity with CCPT (Ray, 2011; Ray et al., 2017). This was to ensure that CCPT skills were being used appropriately in research where it is the intervention. Ray (2011) suggested that play therapists should have a 90% to 100% on the PTSC to be using CCPT effectively; however, there had not been any assessments of its psychometric properties. Ray et al. (2017) adjusted the PTSC to focus on research for CCPT and created the CCPT-RIC. Ray et al. (2017) completed a study with four expert play therapists reviewing tapes of five play therapists using the CCPT-RIC. The results showed a kappa of .82 and an IRR of .95, suggesting the CCPT-RIC could be an effective CCPT assessment. Although Ray (2011) suggested a 90% to 100% compliance when using the PTSC and CCPT-RIC, there has been no research to support this claim. Due to the limited research on the reliability of the CCPT-RIC, there are limitations regarding research fidelity (Ray, 2017). With these considerations in mind, the researcher chose to follow previous studies of CCPT and use the CCPT-RIC to ensure the appropriate skills and language are being used (Blanco & Ray, 2011; Blanco et al., 2012; Bratton et al., 2013; Muro et al., 2006; Ray et al.,

2007; 2008; 2009; Ray, 2017; Schottelkorb & Ray, 2009; Schottelkorb et al., 2012; Stulmaker & Ray, 2015).

The researcher recorded sessions with participants after getting permission from parents. All recordings were completed on a video camera not connected to the internet and then immediately transferred to external hard drive that only the researcher and the researcher's supervisor/dissertation chair had access to. The supervisor/dissertation chair randomly selected one video each week that participants completed CCPT sessions and watched five to 10 minutes to ensure the researcher was meeting the recommended 90% to 100% on the CCPT-RIC. At the end of the study the researcher had a 94.12% CCPT responses, which falls within the 90% - 100% recommendation. Utilizing the CCPT-RIC follows the recommendations from Humble et al. (2019) for a more rigorous research protocol for CCPT with children who have been exposed to ACEs.

Procedure

Site

The school was a first of its kind in the state charter school that focuses on children who have been exposed to ACEs. The school was in its first year of existence during this dissertation. The goal of the school is to provide a trauma-informed environment to assist their students in social emotional growth. Class sizes had 10 students with one head teacher and two paraprofessionals in each class. All teachers, paraprofessionals, the school counselor and staff at the site were trained in trust-based relational intervention and conscious discipline. Additionally, two school-based clinicians from a local agency who are also trained in CCPT and trust-based relational intervention were servicing students who qualify for treatment. The researcher worked

closely with the school's principal, school counselor, teachers, and guardians to ensure that during the study the participants are not receiving any other mental health interventions.

Phases

The researcher chose to utilize a SCRD and this means the study was split into separate phases. This dissertation utilized a SCRD A-B with maintenance structure, since this method is effective and commonly used within the counseling field (Lenz, 2015; Pester et al., 2019; Ray, 2015). Each phase within this dissertation had specific protocols and either a CCPT intervention or no intervention. The researcher followed the protocol for CCPT proposed by Ray (2011) and used the CCPT-RIC to ensure research fidelity during phase B. SCRD is a rigorous research method, which falls in line with the recommendations from Humble et al. (2019). For a visual display of each phase protocol and interventions refer to Table 9.

Staggering

The What Works Clearinghouse (Kratochwill et al., 2010) recommends that there be staggering in the start of phase B for participants to ensure there are no causal inferences and for better research control. The researcher intended to have two legs of the study and have three participants in each leg; however, due to there being five participants it was decided to have one leg. Participants were randomly assigned when they would start phase B. With the exception of one participant (Kobe) participants were randomly assigned to when they would begin phase B. The order was set as follows: Mike, Lincoln, Justin, Ernie, and Kobe. It is suggested that participants who start phase B show progress before starting the next participant; however, based on play therapy not having instant results it was decided that each participant would start phase B after the participant ahead of them had two observations in phase B.

Phase A

Phase A began during the first week back after winter break. Due to the staggering, phase A of the study for each participant varied but lasted between two and a half weeks (five data points) to six and a half weeks (13 data points). This phase involved no intervention to establish a baseline of the students' behaviors. Kennedy (2005) suggested that three data points for the baseline are appropriate; however, others have suggested that five is the minimum (Vannest et al., 2013). Clearinghouse standards for evidence-based practice with SCRD suggest five data points for each phase (Maggin et al., 2013). Furthermore, other studies suggest being flexible with phase A and beginning phase B after a clear baseline has been established within the data (Ray, 2015). With these considerations, the researcher chose to have a minimum of five data points during phase A due to the condensed time schedule of the academic semester. During phase A each participant received two DOF observations per week. For a visual display of phase A refer to Table 9.

Phase B

The beginning of phase B (intervention phase) varied due to the staggering. For Mike, it started after two and a half weeks (five data points) and for Kobe it started after six and a half weeks (13 data points). For each participant phase B lasted the same amount of time, eight weeks and consisted of two to three 30-minute CCPT sessions per week to get to a total of 16 sessions. This does fall short of the suggested 25 – 30 to see long-term change. However, this is consistent with previous research on CCPT which supports the effectiveness of 14-16 sessions (Lin & Bratton, 2015; Pester et al., 2019; Ray et al., 2015). This phase follows the suggestions from Vannest et al. (2013) and Clearinghouse standards for evidence-based practices suggestion (Kratochwill et al., 2010; Maggin et al., 2013) of having more than five data points. Like in

phase A, phase B included the observers completing two to three DOFs per week. A structure was established that each participant in phase B will get as many observations per week as sessions they received. Additionally, each observation was scheduled to happen sometime after a CCPT session and before the next one. For a visual display of phase B refer to Table 9.

Maintenance

The maintenance phase began for each participant after eight weeks of phase B. The maintenance phase of the study lasted for a total of two and a half weeks for each participant and involved no intervention. Unlike the baseline phase, in this phase all participants had five data points. During the maintenance phase, all participants had two observations completed on them per week. For a visual display of phase A refer to Table 9.

Table 9. Participant Schedule

Week	Participant				
	Mike	Lincoln	Justin	Ernie	Kobe
1	Phase A	Phase A	Phase A	Phase A	Phase A
1	Phase A	Phase A	Phase A	Phase A	Phase A
2	Phase A	Phase A	Phase A	Phase A	Phase A
2	Phase A	Phase A	Phase A	Phase A	Phase A
3	Phase A	Phase A	Phase A	Phase A	Phase A
3	Phase B	Phase A	Phase A	Phase A	Phase A
4	Phase B	Phase A	Phase A	Phase A	Phase A
4	Phase B	Phase B	Phase A	Phase A	Phase A
5	Phase B	Phase B	Phase A	Phase A	Phase A
5	Phase B	Phase B	Phase B	Phase A	Phase A
6	Phase B	Phase B	Phase B	Phase A	Phase A
6	School	School	School	School	School
	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled
7	School	School	School	School	School
	Cancelled	Cancelled	Cancelled	Cancelled	Cancelled
8	Phase B	Phase B	Phase B	Phase B	Phase A
8	Phase B	Phase B	Phase B	Phase B	Phase A
8	Phase B	Phase B	Phase B	Phase B	Phase B
9	Phase B	Phase B	Phase B	Phase B	Phase B

Table 9. Participant Schedule Cont.

Week	Participant				
	Mike	Lincoln	Justin	Ernie	Kobe
9	Phase B	Phase B	Phase B	Phase B	Phase B
10	Phase B	Phase B	Phase B	Phase B	Phase B
10	Phase B	Phase B	Phase B	Phase B	Phase B
10	Phase B	Phase B	Phase B	Phase B	Phase B
11	Phase B	Phase B	Phase B	Phase B	Phase B
11	Phase B	Phase B	Phase B	Phase B	Phase B
11	Maintenance	Phase B	Phase B	Phase B	Phase B
12	Spring Break	Spring Break	Spring Break	Spring Break	Spring Break
13	Maintenance	Phase B	Phase B	Phase B	Phase B
13	Maintenance	Maintenance	Phase B	Phase B	Phase B
14	Maintenance	Maintenance	Phase B	Phase B	Phase B
14	Maintenance	Maintenance	Maintenance	Phase B	Phase B
15		Maintenance	Maintenance	Phase B	Phase B
15		Maintenance	Maintenance	Maintenance	Phase B
16			Maintenance	Maintenance	Phase B
16			Maintenance	Maintenance	Maintenance
17				Maintenance	Maintenance
17				Maintenance	Maintenance
18					Maintenance
18					Maintenance

Note. Phase A = no intervention, Phase B = CCPT intervention, and Maintenance = no intervention

Deviations from Procedure

There were a few deviations from procedures. The researcher started the study in the first semester of the school year and got a total of five observations per participant in; however, it was paused due to a COVID exposure at the school. The COVID exposure closed the school for three weeks and with impending breaks for holidays the researcher decided to stop and re-start the study the next semester.

Once the study started in the second half of the semester, there was a total of six days of school that were cancelled due to weather. This led to participants missing three sessions and data points. Participants then received three sessions a week for the next three weeks to keep the

study on schedule to end before the end of the school year. Additionally, there was one week off for Spring Break, but the researcher had planned for this from the beginning of the study. In addition to these interruptions in the study, Lincoln and Justin did not get all of their sessions recorded. Lincoln had a total of 12 sessions recorded before it was decided by the research to remove the camera due to the continued distraction the camera caused him. Justin had a total of nine sessions recorded before it was decided by the research to remove the camera due to his reluctance to return to the playroom because of the camera.

Data Analysis

The researcher followed the steps from established SCRD data analysis and as recommended by Ray (2015). There are four steps and six variables that previous research recommends when conducting data analysis in SCRD (Kratowill et al., 2010; Pester et al., 2019; Ray, 2015). Visual analysis of data is the suggested form of data analysis with SCRD (Ray, 2015). Visual analysis allows for the researcher to view the impact of the intervention phase compared to the baseline phase (Vannest et al., 2013). As previously stated, there are four steps within visual analysis for SCRD:

documentation of predictable baseline pattern, examination of data within each phase to assess patterns, comparison of data between phases to assess the effect of the intervention, and integration of information from all phases to determine if there are at least three demonstrations of effect (Ray, 2015, p. 400).

In addition to these four steps, there are six variables to consider: level of each phase (mean), trend of each phase, variability of each phase (standard deviation and range), immediacy of effect, consistency of data patterns across phases, and overlap (Ray, 2015). Additionally, there have been debates on the best statistic to use for overlap and effect size for SCRD, this

dissertation utilized Tau-U to calculate overlap and effect size due to it being the most robust (Brossart et al., 2018; Parker et al., 2011a; Parker et al., 2011b). Tau-U is more robust due to it comparing all scores in each phase to each other, and calculating an effect size, whereas other methods do not compare all scores in each phase (Brossart et al., 2018). All data analysis was completed via Excel.

Some of the visual analysis methods need further explanation as detailed by Ray (2015). First, the level refers to the mean and the researcher calculated the mean of each phase and look for differences between each. Second, the trend was determined via the slope to assess the direction of their scores in each phase. Third, variability was calculated via obtaining the standard deviation and range for each phase. Fourth, the immediacy of effect was calculated to see the immediate impact of introducing or removing an intervention. This was completed by looking at the last and first three data points within each phase transition. Fifth, is consistency of data patterns across similar phases this was completed by looking at the means of the last three data points in phase A and first three in phase B. Sixth, is overlapping data and assessing if there are any data that overlaps over phases which means data in phases that are in the same range. This was completed by calculating the Tau-U by comparing each phase.

There have been debates on which method is best for calculating overlap and effect size within SCRD (Pester et al., 2019; Lenz, 2013; Ray, 2015). The researcher used the Tau-U statistic to calculate the effect size for each participant, specifically $\text{Tau-U}_{a \text{ vs. } b}$, $\text{Tau-U}_{b \text{ vs. maintenance}}$, and $\text{Tau-U}_{a \text{ vs. maintenance}}$ to measure the effect size for the intervention phase compared to each non-intervention phase (Brossart et al., 2018). In order to calculate Tau-U the researcher subtracted individual data points in a selected phase to every data point in another phase. For the purposes of this dissertation, the researcher compared the scores in phase A to scores in phase B,

phase B to maintenance phase, and phase A to maintenance phase. Once the scores were subtracted, the researcher completed a pairwise comparison between data points to see if there is a positive (concordant), negative (discordant), or tie between the data points in the phases. For the purposes of this dissertation a positive (concordant) relationship was assessed as progress. Then the researcher calculated the possible number of scores by multiplying the number of data points in the two phases you are comparing, and if there are any ties subtract that number from the product of the two phases, with the equation being: $(N_a * N_b) - Ties = N_{pair}$. After this the negative scores were subtracted from the positive scores to generate the Kendall Score (S). The S was then divided by N_{pair} (S/N_{pair}), thus getting your Tau-U. Vannest and Ninci (2015) report that the effect size range for Tau-U is as follows: less than .20 small change, .21 - .60 moderate change, .61 - .80 large change, and .81 and above large to very large. Based on the recommendations from Humble et al. (2019) the researcher will provide the effect size for all participants which can help with future meta-analysis.

Funding

The researcher received a \$1,400 grant from the Graduate Professional Student Council at the University of Arkansas that will fund the purchase of the following: iPad and accessories, camera and accessories, gift cards, and assessments.

Chapter IV: Findings

Results

This dissertation implemented a single-case research design (SCRD) to examine the impact of child-centered play therapy (CCPT) on the externalized behaviors of K-2nd grade children who have been exposed ACEs. This dissertation utilized the Attention-Deficit/Hyperactivity Disorder (ADHD) subscale on the Direct Observation Form (DOF) to assess the impact that 16 CCPT sessions. For the DOF, lower numbers indicate less ADHD behaviors during that observation. In addition to the DOF, the researcher had guardians complete the Trauma Symptom Checklist for Young Children – Screening Form (TSCYC-SF) as a pre- and post-assessment. In this section, the researcher presents the results from the study using the visual analysis of data that was discussed in the previous section. The researcher presents the data for each individual participant in charts and graphs, and a chart with all participants Tau-U, level (mean), and variability (standard deviation and range) scores. The charts will display the following data from the DOF ADHD subscale: level of each phase (mean), trend, variability of each phase (standard deviation and range), immediacy of effect, consistency of data patterns across phases, and overlap (Tau-U). In addition to overlap, the Tau-U score provides an effect size for the participant. The graphs will display each observation for every participant across all phases. Each section will discuss the comparison of data from phase A to phase B, phase B to maintenance, and phase A to maintenance.

Mike

Direct Observation Form

Mike participated in two and a half weeks of phase A (no intervention) with a total of five data points, eight weeks of phase B (intervention) with a total of 16 data points, and two and

a half weeks of maintenance (no intervention) with a total of five data points. Mike was in the study for 13 weeks and had a total of 26 data points. Table 10 provides the following data: level of each phase (mean), trend, variability of each phase (standard deviation and range), immediacy of effect, consistency of data patterns across phases, and overlap (Tau-U).

Table 10. Mike's Visual Analysis of Data

Mike's Visual Analysis of Data		
Metric	Phase	Result
Level (mean)	A	15.6
	B	14.31
	Maintenance	2.2
Trend	A	Up
	B	Down
	Maintenance	Stable
Variability (SD, Range)	A	13.01; 35
	B	12.85; 44
	Maintenance	2.49; 6
Immediacy of Effect	A to B	14, 2, 37; 27, 44, 6
	B to Maintenance	9, 0, 17; 0, 0, 3
Consistency of Data	A to B	17.67; 25.67
	B to Maintenance	8.67; 1
Tau- U	A to B	.13
	B to Maintenance	.75
	A to Maintenance	.83

Figure 2 presents Mike's DOF scores across all phases. He had a level (mean) of 15.6 in phase A and 14.31 in phase B, indicating a decrease in scores between the phases. During phase A, Mike had an upward trend in his scores, but in phase B he had a downward trend, demonstrating a possible positive effect from the intervention. His variability in phase A consisted of a range of 35 (37-2) and 44 (44-0) in phase B indicating an increase in his variability between phases; however, his standard deviation in phase A was 13.01 and phase B was 12.85, providing evidence that there was more consistency within his scores during intervention phase despite the larger range. Mike had a 10-point decrease in scores from his last observation in phase A baseline (37) to his first one in phase B intervention (27), indicating an immediate impact from the intervention. Mike's $Tau-U_{a \text{ vs. } b}$ was calculated comparing the five data points in phase A to the 16 in phase B. After completing the pairwise composite of scores in phase A to phase B, Mike had a total of 44 positive, 34 negative, and 2 ties, giving him an S of 10. Mike's N_{pair} for phase A to phase B was 78 ($5*16$)-2. His $Tau-U_{a \text{ vs. } b}$ was calculated by dividing S/N_{pair} ($10/78$) thus giving him a score of .13, indicating a small effect size (Vannest & Ninci, 2015).

In comparison of phase B and maintenance phase, Mike had a level (mean) of 14.31 in phase B and 2.2 in maintenance phase, indicating a positive carry over effect from the end of the intervention. During phase B, Mike had a downward trend and a stable trend in maintenance phase, demonstrating a possible stabilizing carry over effect at the end of the intervention. His variability in phase B had a range of 44 (44-0) and six (6-0) in maintenance, indicating a decrease in his variability between phases. His standard deviation in phase B (12.85) and maintenance (2.49) supported that his scores were more consistent after the intervention stopped. He had a 17-point drop from his last score in phase B (17) to his first score in maintenance phase (zero). Mike's $Tau-U_{b \text{ vs. } \text{maintenance}}$ was calculated comparing the 16 data points in phase B to the

five points in maintenance. After completing the pairwise composite of scores in phase B to maintenance phase, Mike had a total of 64 positive, 9 negative, and 7 ties, giving him an S of 55. Mike's N_{pair} for phase B and maintenance phase was 73 ($16*5-7$). His $\text{Tau-}U_{\text{b vs. maintenance}}$ was calculated by dividing S/N_{pair} ($55/73$) thus giving him a score of .75, indicating a large effect size from phase B to maintenance phase (Vannest & Ninci, 2015).

In comparison of phase A to maintenance phase, Mike had a level (mean) of 15.6 in phase A and 2.2 in maintenance phase, indicating a decrease in scores when comparing pre and post intervention. During his phase A, Mike had a positive trend, but in his maintenance phase, he had a stable trend indicating a possible stabilizing effect from the intervention. His variability in phase A consisted of a range of 35 ($37-2$) and six ($6-0$) in maintenance phase, indicating a decrease in variability after the intervention. His standard deviation in phase A (13.01) and maintenance phase (2.49) support that his scores were more consistent after the intervention. Mike's $\text{Tau-}U_{\text{a vs. maintenance}}$ was calculated comparing the five data points in phase A to the five data points in maintenance phase. After completing the pairwise composite of scores in phase A to maintenance phase, Mike had a total of 22 positive, 2 negative, and 1 tie, giving him an S of 20. Mike's N_{pair} for phase A to maintenance was 24 ($5*5-1$). His $\text{Tau-}U_{\text{a vs. maintenance}}$ was calculated by dividing S/N_{pair} ($22/24$) thus giving him a score of .83, indicating a large to very large effect from pre to post intervention (Vannest & Ninci, 2015).

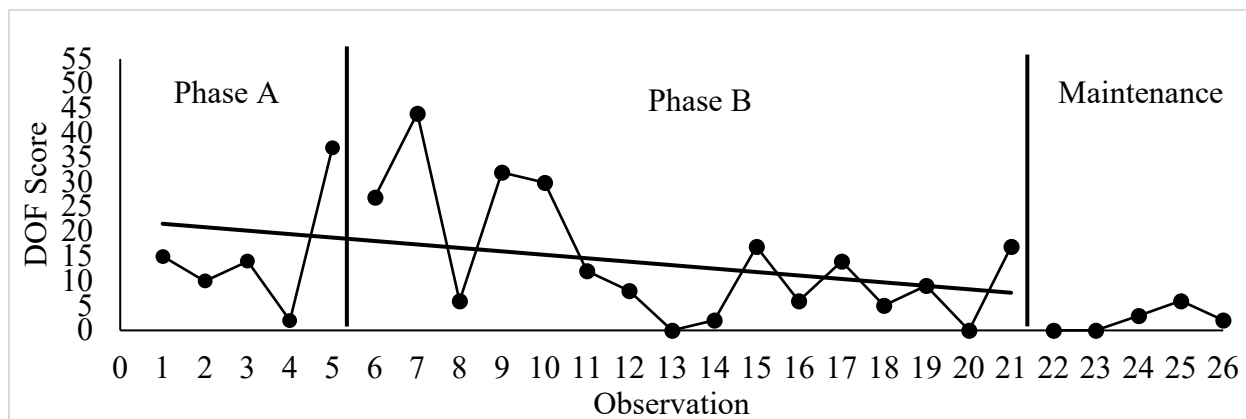


Figure 2. Mike's Direct Observation Scores Across Phases

Trauma Symptom Checklist for Young Children – Screening Form

For the pre-assessment, Mike's mother completed the TSCYC-SF before the study started and he had a score of 21 for general trauma and eight for sexualized concerns. Mike's score on general trauma was one point below the threshold for an elevated score and his sexual concerns score was the lowest possible score. Mike's mother completed the TSCYC-SF at the end of phase B, and he had scores of 19 for general trauma and eight for sexualized trauma, indicating a decrease in trauma symptoms at home. Additionally, his scores were below the threshold for an elevated score for both generalized trauma and sexualized trauma at the end of the study.

Lincoln

Direct Observation Form

Lincoln participated in three and a half weeks of phase A (no intervention) with a total of seven data points, eight weeks of phase B (intervention) with a total of 16 data points, and two and a half weeks of maintenance (no intervention) with a total of five data points. Lincoln was in the study for 14 weeks and had a total of 28 data points. Table 11 provides the following data: level of each phase (mean), trend, variability of each phase (standard deviation and range), immediacy of effect, consistency of data patterns across phases, and overlap (Tau-U).

Table 11. Lincoln's Visual Analysis of Data

Lincoln's Visual Analysis of Data		
Metric	Phase	Result
Level (mean)	A	25.71
	B	13.38
	Maintenance	1.2
Trend	A	Up
	B	Down
	Maintenance	Stable
Variability (SD, Range)	A	18.57; 46
	B	14.61; 53
	Maintenance	1.3; 3
Immediacy of Effect	A to B	15, 49, 46; 4, 25, 20
	B to Maintenance	3, 0, 0; 3, 1, 2
Consistency of Data	A to B	36.67; 16.33
	B to Maintenance	1; 2
Tau- U	A to B	.44
	B to Maintenance	.84
	A to Maintenance	1.00

Figure 3 presents Lincoln's DOF scores across all phases. He had a level (mean) of 25.71 in phase A and 13.38 in phase B, indicating a decrease in scores between phases. During phase A, Lincoln had an upward trend, but in phase B had a downward trend, demonstrating a possible

positive effect from the intervention. His variability in each phase consisted of a range of 46 (49-3) in phase A and 53 (53-0) in phase B indicating an increase in his variability between phases; however, his standard deviation in phase A was 18.57 and 14.61 in phase B, providing evidence that there was more consistency in his scores during intervention phase despite the larger range. Lincoln had a 42-point decrease in scores from his last observation in phase A baseline (46) to his first one in phase B intervention (four), indicating an immediate impact of the intervention. Lincoln's $Tau-U_{a \text{ vs. } b}$ was calculated comparing the seven data points in phase A to the 16 in phase B. After completing the pairwise composite of scores in phase A to phase B, Lincoln had a total of 79 positive, 31 negative, and 2 ties, giving him an S of 48. Lincoln's N_{pair} for phase A to phase B was $110 (7*16)-2$. His $Tau-U_{a \text{ vs. } b}$ was calculated by dividing S/N_{pair} ($48/110$) thus giving him a score of .44, indicating a moderate effect size (Vannest & Ninci, 2015).

In comparison of phase B and maintenance phase, Lincoln had a level (mean) of 13.38 in phase B and 1.2 in maintenance, indicating a positive carry over effect from the end of the intervention. During phase B, Lincoln had a downward trend and a stable trend in maintenance phase, demonstrating a possible stabilizing carry over effect at the end of the intervention. His variability in phase B had a range of 53 (53-0) and three (3-0) in maintenance phase, indicating a decrease in his variability between phases. His standard deviation in phase B (14.61) and maintenance (1.30) supported that his scores were more consistent after the intervention stopped. He had a 3-point increase from his last score in phase B (zero) and his first score in Maintenance phase (three). Lincoln's $Tau-U_{b \text{ vs. } \text{maintenance}}$ was calculated comparing the 16 data points in phase B to the five points in maintenance. After completing the pairwise composite of scores in phase B and maintenance phase, he had a total of 68 positive, 6 negative, and 6 ties, giving him an S of 62. Lincoln's N_{pair} for phase B and maintenance was $74 (16*5)-6$. His $Tau-U_{b \text{ vs. } \text{maintenance}}$ was

calculated by dividing S/N_{pair} (62/74) thus giving him a score of .84, indicating a large to very large effect size from phase B to maintenance phase (Vannest & Ninci, 2015).

In comparison of phase A to maintenance phase, Lincoln had a level (mean) of 25.71 in phase A and 1.2 in maintenance phase, indicating a decrease in scores pre and post intervention. During his phase A, Lincoln had a positive trend, but in maintenance had a stable trend indicating a possible stabilizing effect from the intervention. His variability in phase A consisted of a range of 46 (49-3) and three (3-0) in maintenance phase, indicating a decrease in variability after the intervention. His standard deviation in phase A (18.57) and maintenance phase (1.3) supported that his scores were more consistent after the intervention. Lincoln's Tau- $U_{\text{a vs. maintenance}}$ was calculated comparing the seven data points in phase A and five points in maintenance. After completing the pairwise composite of scores in phase A and maintenance phase, Lincoln had a total of 34 positive, 0 negative, and 1 tie, giving him an S of 34. Lincoln's N_{pair} for phase A to maintenance was 34 (7*5)-1. His Tau- $U_{\text{a vs. maintenance}}$ was calculated by dividing S/N_{pair} (34/34) thus giving him a score of 1.00 indicating a large to very large effect from pre to post intervention (Vannest & Ninci, 2015).

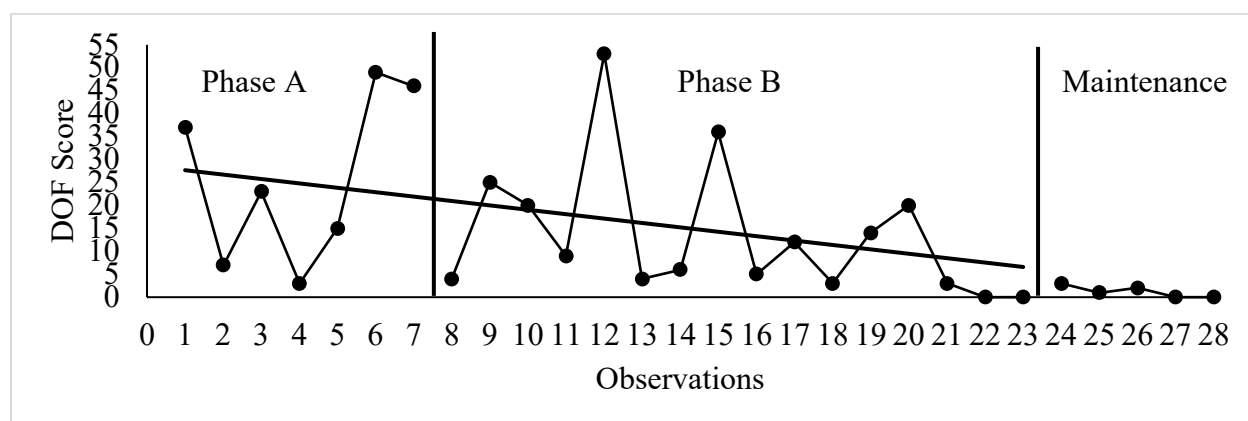


Figure 3. Lincoln's Direct Observation Scores Across Phases

Trauma Symptom Checklist for Young Children – Screening Form

For the pre-assessment, Lincoln's mother completed the TSCYC-SF before the study started and he had a score of 31 for general trauma and nine for sexualized concerns. Lincoln's score on general trauma met the threshold for an elevated score that warrants further assessment and his sexual concerns score was one point lower than the threshold for an elevated score.

Lincoln's mother completed the TSCYC-SF after he completed treatment and he had a score of 31 for general trauma and a 12 for sexualized concerns, indicating an increase in trauma related behaviors at home. His scores at the end of the study were still elevated in the further assessment needed area and Lincoln was referred for continued play therapy after the study.

Justin

Direct Observation Form

Justin participated in four and a half weeks of phase A (no intervention) with a total of nine data points, eight weeks of phase B (intervention) with a total of 16 data points, and two and a half weeks of maintenance (no intervention) with a total of five data points. Justin was in the study for 15 weeks and had a total of 30 data points. Table 12 provides the following data: level of each phase (mean), trend, variability of each phase (standard deviation and range), immediacy of effect, consistency of data patterns across phases, and overlap (Tau-U).

Table 12. Justin's Visual Analysis of Data

Justin's Visual Analysis of Data		
Metric	Phase	Result
Level (mean)	A	7.11
	B	3
	Maintenance	.4

Table 12. Justin's Visual Analysis of Data Cont.

Justin's Visual Analysis of Data		
Metric	Phase	Result
Trend	A	Stable
	B	Downward
	Maintenance	Stable
Variability (SD, Range)	A	3.37; 9
	B	3.56; 12
	Maintenance	.55; 1
Immediacy of Effect	A to B	10, 3, 12; 2, 7, 0
	B to Maintenance	0, 1, 0; 0, 1, 0
Consistency of Data	A to B	8.33; 3
	B to Maintenance	.33; .33
Tau- U	A to B	.65
	B to Maintenance	.73
	A to Maintenance	1.00

Figure 4 presents Justin's DOF scores across phases. He had a level (mean) of 7.11 in phase A and three in phase B, indicating a decrease in scores between phases. During phase A, Justin had a stable trend and in phase B had a downward trend, demonstrating a possible positive effect of the intervention. His variability in phase A had a range of nine (12-3) and in phase B a range of 12 (12-0), indicating an increase in his variability of scores between phases. His standard deviation in phase A (3.37) and in phase B (3.56), indicated a small increase in

variability in scores. Justin had a 10-point decrease from the end of phase A (12) to the beginning of phase B (two), indicating an immediate impact of the intervention. Justin's $Tau-U_{a \text{ vs. } b}$ was calculated comparing the nine data points in phase A and 16 data points in phase B. After completing the pairwise composite of scores in phase A to phase B, Justin had a total of 114 positive, 24 negative, and 6 ties, giving him an S of 90. Justin's N_{pair} for phase A to phase B was 138 $(9*16)-6$. His $Tau-U_{a \text{ vs. } b}$ was calculated by dividing S/N_{pair} $(90/138)$ thus giving him a score of .65, indicating a large effect size (Vannest & Ninci, 2015).

In comparison of phase B and maintenance phase, Justin had a level (mean) of 12 in phase B and one in maintenance phase, indicating a positive carry over effect from the end of the intervention. During his phase B, Justin had a downward trend and stable trend in maintenance phase, demonstrating a possible stabilizing carry over effect at the end of the intervention. His variability in phase B had a range of 12 (12-0) and one (1-0) in maintenance phase, indicating a decrease in his variability between phases. His standard deviation in phase B (3.56) and maintenance phase (.55) supported that his scores were more consistent after the intervention stopped. He had no change from his last score in phase B (zero) to his first score in maintenance phase (zero). Justin's $Tau-U_{b \text{ vs. maintenance}}$ was calculated comparing the 16 data points in phase B to the five points in maintenance. After completing the pairwise composite of scores in phase B to maintenance phase, Justin had a total of 52 positive, 8 negative, and 20 ties, giving him an S of 44. Justin's N_{pair} for phase B and maintenance phase was 60 $(16*5)-20$. His $Tau-U_{b \text{ vs. maintenance}}$ was calculated by dividing S/N_{pair} $(44/60)$ thus giving him a score of .73, indicating a large effect size from phase B to maintenance phase (Vannest & Ninci, 2015).

In comparison of phase A to maintenance phase, Justin had a level (mean) of 7.11 in phase A and .40 in maintenance phase, indicating a decrease in scores pre and post intervention.

During phase A, Justin had an upward trend, but in his maintenance phase, had a stable trend, indicating a possible positive effect from the intervention. His variability in phase A consisted of a range of nine (12-3) and one (1-0) in maintenance phase, indicating a decrease in variability in scores. His standard deviation in phase A (3.37) and maintenance phase (.55) supported that his scores were more consistent after the intervention. Justin's τ - $U_{a \text{ vs. maintenance}}$ was calculated comparing the nine data points in phase A and five data points in maintenance phase. After completing the pairwise composite of scores in phase A and maintenance phase, Justin had a total of 45 positive, 0 negative, and 0 ties, giving him an S of 45. Justin's N_{pair} for phase A to maintenance was 45 (9×5). His τ - $U_{a \text{ vs. maintenance}}$ was calculated by dividing S/N_{pair} ($45/45$) thus giving him a score of 1.00, indicating a large to very large effect from pre to post intervention (Vannest & Ninci, 2015).

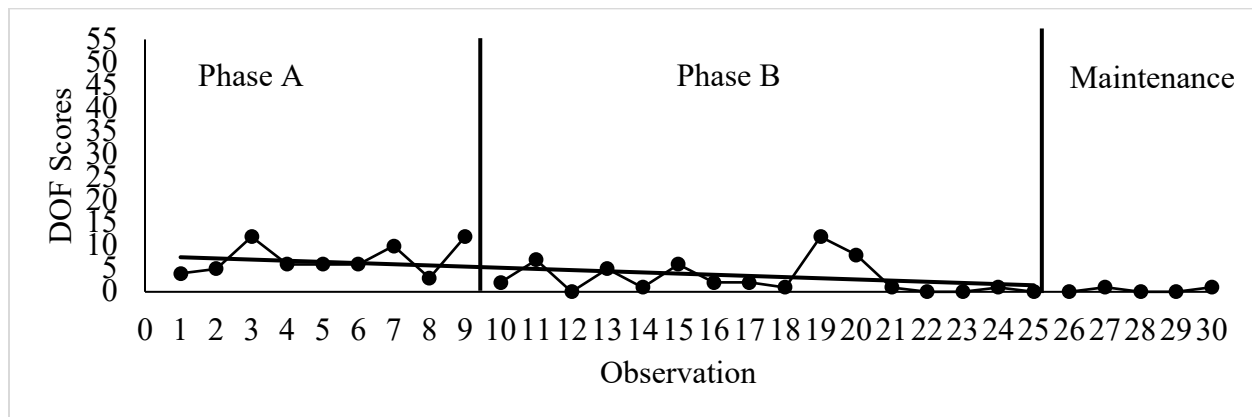


Figure 4. Justin's Direct Observation Scores Across Phases

Trauma Symptom Checklist for Young Children – Screening Form

For the pre-assessment, Justin's mother completed the TSCYC-SF before the study started and he had a score of 30 for general trauma and nine for sexualized concerns. Justin's score on general trauma met the threshold for an elevated score that warrants further assessment and his sexual concerns score was one point lower than the threshold for an elevated score. Justin's mother completed the TSCYC-SF at the end of phase B and he had a score of 26 for

general trauma and nine for sexualized trauma, indicating a decrease in general trauma symptoms at home. His scores after the study were still elevated and met the threshold for further assessment and Justin was referred for continued play therapy after the study.

Ernie

Direct Observation Form

Ernie participated in five and a half weeks of phase A (no intervention) with a total of 11 data points, eight weeks of phase B (intervention) with a total of 16 data points, and two and a half weeks of maintenance (no intervention) with a total of five data points. Ernie was in the study for 16 weeks and had a total of 32 data points. Table 13 provides the following data: level of each phase (mean), trend, variability of each phase (standard deviation and range), immediacy of effect, consistency of data patterns across phases, and overlap (Tau-U).

Table 13. Ernie's Visual Analysis of Data

Ernie's Visual Analysis of Data		
Metric	Phase	Result
Level (mean)	A	9.82
	B	5.06
	Maintenance	1.6
Trend	A	Down
	B	Stable
	Maintenance	Stable
Variability (SD, Range)	A	5.60; 17
	B	4.04; 15
	Maintenance	1.67; 4

Table 13. Ernie's Visual Analysis of Data Cont.

Ernie's Visual Analysis of Data		
Metric	Phase	Result
Immediacy of Effect	A to B	13, 12, 1; 3, 3, 8
	B to Maintenance	2, 3, 9; 0, 2, 0
Consistency of Data	A to B	8.67; 4.67
	B to Maintenance	4.67; .67
Tau- U	A to B	.54
	B to Maintenance	.67
	A to Maintenance	.85

Figure 5 presents Ernie's DOF scores across all phases. He had a level (mean) of 9.85 in phase A and 5.10 in phase B, indicating a decrease in scores between the phases. During his phase A, Ernie had a downward trend, but in phase B had a stable trend, indicating more consistency in scores during intervention phase. His variability in phase A consisted of a range of 17 (18-1) and 15 (15-0) in phase B, indicating a decrease in his variability between phases. His standard deviation in phase A (5.60) and phase B (4.04) supported this finding of more consistency in scores during intervention phase. Ernie had a 2-point increase from his last observation in phase A (one) and his first one in phase B (three). Ernie's $Tau-U_{a \text{ vs. } b}$ was calculated comparing the 11 data points in phase A to the 16 in phase B. After completing pairwise composite of scores in phase A to phase B, Ernie had a total of 128 positive, 38 negative, and 10 ties, giving him an S of 90. Ernie's N_{pair} for phase A to phase B was 166

(11*16)-10. His $Tau-U_{a \text{ vs. } b}$ was calculated by dividing S/N_{pair} (128/166) thus giving him a score of .54, indicating a moderate effect size (Vannest & Ninci, 2015).

In comparison of phase B and maintenance phase, Ernie had a level (mean) of 5.06 in phase B and 1.6 in maintenance phase, indicating a positive carry over effect from the end of the intervention. During his phase B, Ernie had a stable trend and a stable trend in maintenance, demonstrating a consistent carry over effect at the end of the intervention. His variability in phase B had a range of 15 (15-0) and four (4-0) in maintenance, indicating a decrease in his variability between phases. His standard deviation in phase B was 4.04 and 1.67 in maintenance phase, supporting that his scores were more consistent after the intervention stopped. He had a 9-point decrease in the last session in phase B (nine) and first observation in maintenance phase (zero). Ernie's $Tau-U_{b \text{ vs. } \text{maintenance}}$ was calculated comparing the 16 data points in phase B to the five data points in maintenance phase. After completing the pairwise composite of scores in phase B to maintenance phase, Ernie had a total of 60 positive, 12 negative, and 8 ties, giving him an S of 72. Ernie's N_{pair} for phase B and maintenance phase was 72 (16*5)-8. His $Tau-U_{b \text{ vs. } \text{maintenance}}$ was calculated by dividing S/N_{pair} (60/72) thus giving him a score of .67, indicating a large effect size from phase B to maintenance phase (Vannest & Ninci, 2015).

In comparison of phase A to maintenance phase, Ernie had a level (mean) of 9.82 in phase A and 1.6 in maintenance phase, indicating a decrease in scores from pre to post intervention. During his phase A, Ernie had a downward trend and in maintenance phase had a stable trend, indicating a stabilization in scores from pre to post intervention. His variability in phase A consisted of a range of 17 (18-1) and four (4-0) in maintenance phase, indicating a decrease in his variability after the intervention. His standard deviation in phase A (9.82) and maintenance phase (1.6) support that his scores were more consistent after the intervention.

Ernie's $Tau-U_{a \text{ vs. maintenance}}$ was calculated comparing the 11 data points in phase A and five data points in maintenance phase. After completing the pairwise composite of scores in phase A to maintenance phase, Ernie had a total of 51 positive, 4 negative, and 0 ties, giving him an S of 47. Ernie's N_{pair} for phase A to maintenance phase was 55 ($11 * 5$). His $Tau-U_{a \text{ vs. maintenance}}$ was calculated by dividing S/N_{pair} ($47/55$) thus giving him a score of .85, indicating a large to very large effect from pre to post intervention (Vannest & Ninci, 2015).

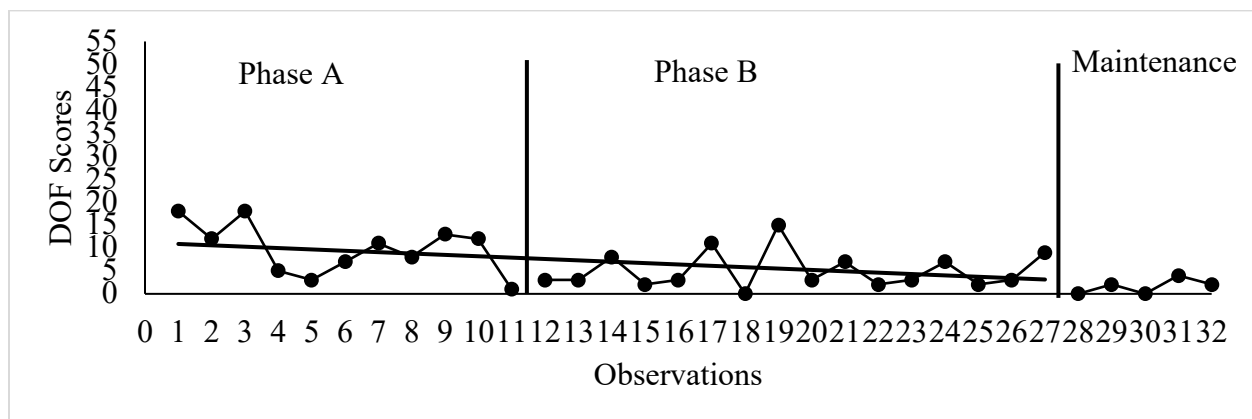


Figure 5. Ernie's Direct Observation Scores Across Phases

Trauma Symptom Checklist for Young Children – Screening Form

For the pre-assessment, Ernie's mother completed the TSCYC-SF before the study started and he had a score of 32 for general trauma and nine for sexualized concerns. Ernie's score on general trauma met the threshold for an elevated score that warrants further assessment and his sexual concerns score was one point lower than the threshold for an elevated score. Ernie's mother completed the TSCYC-SF at the end of the study and had a 19 for general trauma and eight for sexualized trauma, indicating a decrease in trauma related behaviors at home. Ernie's follow-up scored moved out of the elevated score and did not warrant further assessment.

Kobe

Direct Observation Form

Kobe participated in six and a half weeks of phase A (no intervention) with a total of 13 data points, eight weeks of phase B (intervention) with a total of 16 data points, and two and a half weeks of maintenance (no intervention) with a total of five data points. Kobe was in the study for 17 weeks and had a total of 34 data points. Table 14 provides the following data: level of each phase (mean), trend, variability of each phase (standard deviation and range), immediacy of effect, overlap, consistency of data patterns across phases, and overlap (Tau-U).

Table 14. Kobe's Visual Analysis of Data

Kobe's Visual Analysis of Data		
Metric	Phase	Result
Level (mean)	A	5.54
	B	5.38
	Maintenance	2.2
Trend	A	Stable
	B	Stable
	Maintenance	Stable
Variability (SD, Range)	A	6.27; 20
	B	4.91; 16
	Maintenance	1.79; 4
Immediacy of Effect	A to B	6, 4, 10; 2, 2, 4
	B to Maintenance	0, 6, 0; 0, 1, 4
Consistency of Data	A to B	6.67; 2.67

Table 14. Kobe's Visual Analysis of Data Cont.

Kobe's Visual Analysis of Data		
Metric	Phase	Result
Consistency of Data	B to Maintenance	2; 1.67
	A to B	-.11
Tau- U	B to Maintenance	.54
	A to Maintenance	.24

Figure 6 presents Kobe's DOF scores across phases. He had a level (mean) of 5.54 in phase A and 5.38 in phase B, indicating a slight decrease in scores between phases. During phase A and phase B, Kobe had a stable trend in his scores, indicating little to no change from the intervention. His variability in phase A consisted of a range of 20 (20-0) and 16 (16-0) in phase B indicating more consistency in his scores during the intervention. His standard deviation in phase A (6.27) and in maintenance phase (4.91) supported that his scores were more consistent during intervention. Kobe had an 8-point decrease from the end of phase A (10) to the beginning of phase B (two). Kobe's $Tau-U_{a \text{ vs. } b}$ was calculated comparing the 13 data points in phase A and 16 in phase B. After completing the pairwise composite of scores in phase A and phase B, Kobe had a total of 85 positive, 105 negative, and 18 ties, giving him an S of -20. Kobe's N_{pair} for phase A to phase B was $190 (13*16)-18$. His $Tau-U_{a \text{ vs. } b}$ was calculated by dividing $S/N_{\text{pair}} (-20/190)$, thus giving him a score of -.11, indicating a negative effect from the intervention.

In comparison of phase B and maintenance phase, Kobe had a level (mean) of 5.38 in phase B and 2.2 in maintenance phase, indicating a positive carry over effect from the end of the intervention. During his phase B and maintenance phase, Kobe had a stable trend indicating

consistency in his scores across phases. His variability in phase B had a range of 16 (16-0) and four (4-0) in maintenance phase, indicating more consistency in his scores. His standard deviation in phase B (4.91) and maintenance phase (1.79) supported that he had more consistency in his scores across phases. He had a 0-point change from the end of phase B (zero) to the beginning of maintenance phase (zero) adding more support to his scores becoming more consistent. Kobe's $Tau-U_{b \text{ vs. maintenance}}$ was calculated comparing the 16 data points in phase B to the five data points in maintenance phase. After completing the pairwise composite of scores in phase B to maintenance phase, Kobe had a total of 53 positive, 16 negative, and 11 ties, giving him an S of 37. Kobe's N_{pair} for phase B and maintenance phase was $69 (16*5)-11$. His $Tau-U_{b \text{ vs. maintenance}}$ was calculated by dividing S/N_{pair} ($37/69$) thus giving him a score of .54, indicating a moderate effect size from phase B to maintenance phase (Vannest & Ninci, 2015).

In comparison of phase A to maintenance phase, Kobe had a level (mean) of 5.54 in phase A and 2.2 in maintenance phase, indicating a decrease in scores pre and post interventions. During his phase A and maintenance phase, Kobe had a stable trend indicating stability in his scores across these phases. His variability in phase A consisted of a range of 20 (20-0) and four (4-0) in maintenance phase, indicating a decrease in variability after the intervention. His standard deviation in phase A (6.27) and maintenance phase (1.79) provide additional support to more consistent scores post-intervention. $Tau-U_{a \text{ vs. maintenance}}$ was calculated comparing the 13 data points in phase A and five data points in maintenance phase. After completing the pairwise composite of scores in phase A to maintenance phase, Kobe had a total of 36 positive, 22 negative, and 7 ties, giving him an S of 14. Kobe's N_{pair} for phase A to maintenance phase was $58 (13*5)-7$. His $Tau-U_{a \text{ vs. maintenance}}$ was calculated by dividing S/N_{pair} ($14/58$) thus giving him a score of .24, indicating a moderate effect from pre to post intervention (Vannest & Ninci, 2015).

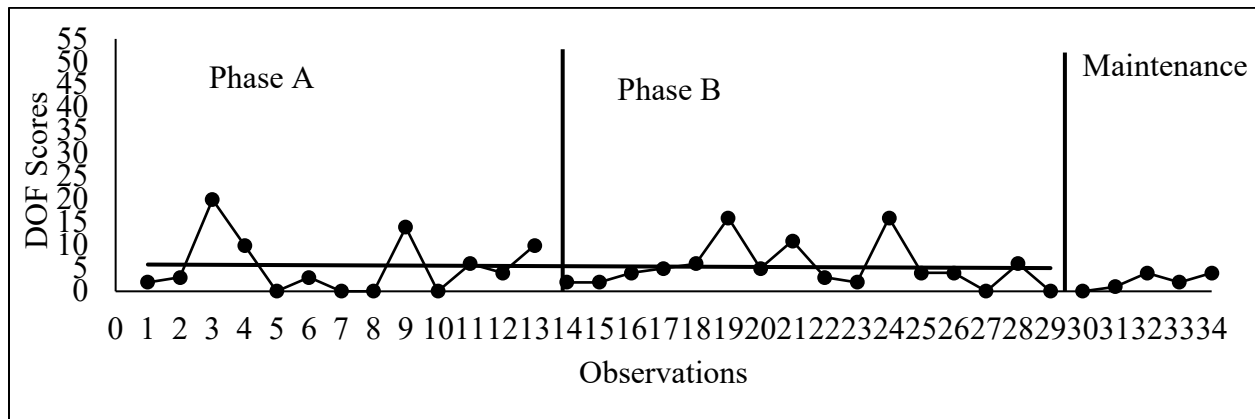


Figure 6. Kobe's Direct Observation Scores Across Phases

Trauma Symptom Checklist for Young Children – Screening Form

For the pre-assessment, Kobe's mother completed the TSCYC-SF before the study started and he had a score of 32 for general trauma and eight for sexualized concerns. Kobe's score on general trauma met the threshold for an elevated score that warrants further assessment, and his sexual concerns score was the lowest possible score for that area. Kobe's mother completed the TSCYC-SF at the end of the study, and he had a score 30 for general trauma and eight for sexualized trauma, indicating and a small decrease in trauma related behaviors at home. Kobe's scores at the end of the study are elevated and meet the threshold for further assessment and he was referred for continued play therapy.

Summary of Findings

To assess the research question, a visual analysis of data and statistical analysis that was discussed in the methods section was completed on individual participants across all their phases. The researcher examined the level (mean), trend, variability (standard deviation and range), immediacy of effect, consistency of data patterns, and overlap (Tau-U) to assess the impact of the intervention. Additionally, all data was graphed to visually inspect the overall impact of the intervention across all phases. The randomized order for staggering provided each participant

with a different number of data points in phase A, ranging from 5 to 13. This section will discuss the summary of findings for individual participants.

Mike

Mike had a decrease in scores in phase B and maintenance phase, indicating an impact of the intervention from baseline and a carryover into maintenance. Mike had more consistency in his scores as he received CCPT sessions, indicating a positive impact from the intervention. Mike had a small effect from phase A to phase B (.13), a large effect from phase B to maintenance phase (.75), and large to very large from phase A to maintenance phase (.83), indicating that there was a positive impact from the intervention during both phase B and maintenance phase.

Lincoln

Lincoln had a decrease in scores in phase B and maintenance phase, indicating an impact of the intervention from baseline and a carryover effect into maintenance. Lincoln had more consistency in his scores as he received CCPT sessions, indicating a positive impact from the intervention. Lincoln had a moderate effect from phase A to phase B (.44), large to very large effect from phase B to maintenance phase (.84), and large to very large effect from phase A to maintenance phase (1.00), indicating that there was a positive impact from the intervention during both phase B and maintenance phase.

Justin

Justin had a decrease in scores in phase B and maintenance phase, indicating an impact of the intervention from baseline and a carryover effect into maintenance. Justin had more consistency in his scores after he received the full 16 CCPT sessions, indicating a positive impact from the intervention. Justin had a large effect from phase A to phase B (.65), from phase B to

maintenance phase (.73), and a large to very large effect from phase A to maintenance phase (1.00), indicating that there was a positive impact from the intervention during both phase B and maintenance phase.

Ernie

Ernie had a decrease in scores in phase B and maintenance phase, indicating an impact of the intervention from baseline and a carry over effect into maintenance. Ernie had more consistency in his scores as he received CCPT sessions, indicating a positive impact from the intervention. Ernie had a moderate effect from phase A to phase B (.54), large effect from phase B to maintenance phase (.67), and a large to very large effect from phase A to maintenance phase (.85), indicating that there was a positive impact from the intervention during both phase B and maintenance phase.

Kobe

Kobe had a decrease in scores in phase B and maintenance phase, indicating an impact of the intervention from baseline and a carryover effect into maintenance. Kobe had more consistency in his scores as he received CCPT sessions, indicating a positive impact from the intervention. Kobe had a negative effect from phase A to phase B (-.11), but a moderate effect from phase B to maintenance (.54) and from phase A to maintenance phase (.24), indicating that there was a positive impact from the intervention.

All Participants

To assess the impact of the intervention each individual participant had their data analyzed covering their level (mean), trend, variability (range and standard deviation), immediacy of effect, consistency of data, and overlap (Tau-U). Looking at each participant results provides evidence for or against the intervention for that participant. This section will

discuss the results for all participants, specifically the level (mean), variability, and overlap (Tau-U). All five of the participants had a decrease in their level (mean) from phase A to phase B, with the largest decrease being 12.34. Additionally, mean scores for each participant decreased from phase B to maintenance phase with the largest decrease being 12.18. Lastly, when looking at phase A level to maintenance phase there was a decrease in all participants scores, with the largest being 24.51. This provides evidence that participants scores decreased as they received the intervention and there was a positive carryover effect into no intervention. See Table 15 for a breakdown of each participants levels.

Table 15. All Participant Levels Across Phases

All Participants Levels Across Phases			
Participant	Phases		
	A	B	Maintenance
Mike	15.6	14.31	2.2
Lincoln	25.71	13.38	1.2
Justin	7.11	3.00	.40
Ernie	9.82	5.06	1.60
Kobe	5.54	5.38	2.20

The researcher analyzed participants variability (range and standard deviation) for each phase. From phase A to phase B three of the five participants (Mike, Lincoln, and Justin) had an increase in their range and the other two participants (Ernie and Kobe) had a decrease in their range. When comparing phase A and phase B to maintenance phase, all participants had a decrease in their range. This provides evidence of participants having more consistent scores pre and post intervention. Additionally, four of the five participants (Mike, Lincoln, Ernie, and Kobe) had a decrease in their standard deviation from phase A to phase B and one had an increase (Justin). Furthermore, all participants had a decrease in their standard deviation from phase A and phase B when compared to maintenance phase providing additional support of

participants having more consistent scores during and after the intervention. See Table 16 for a breakdown of each participants range and standard deviation in each phase.

Table 16. All Participant Variability Scores Across Phases

All Participants Variability Across Phases						
Participant	Range			Standard Deviation		
	A	Phase B	Maintenance	A	Phase B	Maintenance
Mike	35	44	6	13.01	12.85	2.49
Lincoln	46	53	3	18.57	14.61	1.30
Justin	9	12	1	3.37	3.56	.55
Ernie	17	15	4	5.60	4.04	1.67
Kobe	20	16	4	6.27	4.91	1.79

There were multiple Tau-U scores to examine to assess the impact of the 16 CCPT sessions on participants externalized behaviors. When looking at phase A to phase B, one participant (Justin) had a large effect with a score of .65, two participants (Lincoln and Ernie) had moderate effects of .44 and .54, one participant had a small effect (Mike) of .13, and one participant had a negative effect (Kobe) of -.11. This provides support that there was a positive impact from 16 CCPT sessions for four of the five participants from phase A to phase B. When looking at phase B to maintenance phase, one participant (Lincoln) had a large to very large effect of .84, three (Mike, Justin, and Ernie) had a large effect of .75, .73, and .67, and one participant (Kobe) had a moderate effect of .54. This provides support that there was a positive carryover effect from the intervention to no intervention. Lastly, four participants (Mike, Lincoln, Justin, and Ernie) had large to very large effect from phase A to maintenance phase of .83, 1.00, 1.00, and .84, and one participant (Kobe) had a moderate effect of .24. This provides support that all participants had a positive effect from the 16 sessions of CCPT when looking at their pre and post scores. See Table 17 for a breakdown of each participants Tau-U scores.

Table 17. All Participant Tau-U Scores Across Phases

All Participant Tau-U Scores Across Phases			
Participant	Phases		
	A vs. B	B vs. Maintenance	A vs. Maintenance
Mike	.13	.75	.83
Lincoln	.44	.84	1.00
Justin	.65	.73	1.00
Ernie	.54	.67	.85
Kobe	-.11	.54	.24

The purpose of this dissertation was to explore the effectiveness of using CCPT on externalized behaviors with elementary students who have been exposed to ACEs who were attending a school for students who have experienced trauma. The research question was: What is the impact of CCPT on externalized behaviors of ADHD symptoms (disruptive behaviors, ability to stay on task, and impulsivity) in the classroom of K-2nd grade students who have been exposed to ACEs? After completing the visual analysis of data (level, trend, variability, immediacy of effect, consistency of data across phases, and overlap) for participants the results provide evidence that participants had a decrease in their externalized behaviors in the classroom during and after receiving the intervention; therefore, the results provide evidence that 16 CCPT sessions decrease externalized behaviors of ADHD symptoms (disruptive behaviors, ability to stay on task, and impulsivity) in the classroom of K-2nd grade students who have been exposed to ACEs.

Chapter V: Discussion

This dissertation investigated the impact of 16 child-centered play therapy (CCPT) sessions on externalized behaviors (Attention-Deficit/Hyperactivity Disorder [ADHD] related behaviors) of K-2nd grade children exposed to adverse childhood experiences (ACEs). This dissertation utilized an A-B with maintenance single-case research design (SCRD) to assess the impact of the intervention on five participants externalized behaviors in the classroom. As each participant progressed through the phases of the study and received the CCPT intervention their scores decreased and became consistent. This trend continued into the maintenance phase for each participant, indicating that the 16 sessions of CCPT decreased participants externalized behaviors in the classroom after the intervention ended. Each participant progressed through phase B at different paces and had different play themes; however, all made progress in the playroom according to hypothesis from Landreth (2012), Norton and Norton (1997), and Ray (2011). The results from the study provide evidence that supports their progress in the playroom and that it carried over into the classroom. This chapter will discuss the interpretation of results on each individual participant, their themes, and results for all participants, and connect it to previous literature. Lastly, it will cover implications of the limitations and findings for future research.

Individual Results

Mike

Mike's results showed the intervention had a small effect from phase A to phase B; however, it showed a large effect from phase B to maintenance, and large to very large effect from phase A to maintenance phase. Although Mike had a small effect from phase A to phase B, he had a large and very large effect from phase B to maintenance and phase A to maintenance

that provides evidence that the intervention did have a positive effect on his externalized behaviors. Mike's scores from the end of phase A and beginning of phase B indicate that it is possible he did not have an established baseline before the intervention started. Mike was randomly chosen to start the intervention first, thus he had a shorter phase A which might have given him less of a chance to establish a consistent baseline. Mike's last score at the end of phase A and first score in phase B indicate that there was an immediate impact from the intervention. Additionally, Mike's data in phase B provides evidence that his scores became consistent and had a decrease in high scores in his externalized behaviors.

Mike's progress through the intervention phase showed that after session six he had more consistent scores and a decrease in high scores. His progress through the intervention phase mimics that of Norton and Norton's (1997) model that a child might have an increase in symptoms throughout the play therapy process before they make progress. Additionally, between session one through six Mike had aggressive play in every session for almost the entire session focused on power, control, and revenge; however, in session seven he had a first of engaging in mastery and relationship themed play. This provides evidence that Mike was making progress, as Landreth (2012) suggested that first in the playroom indicate progress and Ray (2011) suggested that new themes and change in play might indicate progress in play therapy. Furthermore, Mike had themes of from the Trauma Play Scale (TPS) of expression of negative affect (Myers et al., 2011). This is supported by his decrease in scores after session six. Lastly, Mike's final score in phase B was high, which could indicate that he had a difficult time terminating and was not ready to end his time in play therapy. Although Mike had a small effect size from phase A to phase B, his effect size from phase B to maintenance and from phase A to maintenance indicate that the 16 sessions of CCPT decreased his externalized behaviors in the classroom.

Lincoln

Lincoln's results showed that the intervention had a moderate effect from phase A to phase B; however, he had a large to very large effect from phase B to maintenance and phase A to maintenance. These results provide evidence that the intervention had a positive impact and led to a decrease in Lincoln's externalized behaviors. Lincoln's scores from the end of phase A to the beginning of phase B indicate that the intervention had an immediate impact on his behaviors. Lincoln's data in phase B provides evidence that his scores became consistent and had a decrease in high scores for his externalized behaviors. The data shows that after session 14 Lincoln's scores became consistent and provide evidence of the interventions positive impact. Additionally, Lincoln had seven observations in phase A, which gave him an opportunity to establish a consistent baseline; however, he could have benefited from a few additional baseline observations to decrease the variability in phase A.

Lincoln's progress through the intervention phase showed that after session nine he had limited high scores and they became more consistent. His progress through the intervention phase mimics that of Norton and Norton's (1997) model that a child might have a decrease in progress throughout the play therapy process before they make progress. Lincoln's themes progressed throughout his session as well. For the first eight sessions he had a predominant theme of dependency in each session. After the ninth session he slowly decreased this theme and had an increase in mastery themes. This provides evidence that Lincoln was making progress, as Landreth (2012) suggested that first in the playroom indicate progress and Ray (2011) suggested that new themes and change in play might indicate progress in play therapy. Furthermore, Lincoln had themes of from the TPS of expression of negative affect (Myers et al., 2011). Additionally, during session nine Lincoln was dysregulated and multiple limits needed to be set

during the session. After this session the limit setting in sessions drastically decreased, along with his observation scores. This provides evidence that Lincoln was making progress, as Landreth (2012) suggested that first in the playroom indicate progress. During the ninth session the number of limits that were set was a first, and then after that session his scores became consistent. An additional finding is that Lincoln's results support that CCPT could be an effective intervention for minoritized children. Lincoln had a moderate effect size from phase A to phase B, and a large to very large effect size from phase B to maintenance and phase A to maintenance, indicating that 16 sessions of CCPT had a decrease in his externalized behaviors in the classroom.

Justin

Justin's results showed that the intervention had a large effect from phase A to phase B and phase B to maintenance and a large to very large effect from phase A to maintenance phase. These results provide evidence that the intervention had a positive impact on his externalized behaviors, and they decreased during intervention and carry overed into maintenance phase. Justin's last score in phase A and first score in phase B indicate an immediate impact of the intervention. Additionally, Justin had established a consistent baseline through his nine observations during phase A. This provided a better opportunity to show what impact the intervention had on his externalized behaviors.

Justin's progress through the intervention phase showed that after session 11 he had a decrease in scores which ultimately led to a consistently low score. Justin's themes for the first 12 sessions were focused on anxiety and he did not engage with the researcher at all. After session 12 he started incorporating relationship and nurturing themes into his play. This provides evidence that Justin was making progress, as Landreth (2012) suggested that first in the

playroom indicate progress and Ray (2011) suggested that new themes and change in play might indicate progress in play therapy. Furthermore, Justin had themes of from the TPS of avoidant play (Myers et al., 2011). Interestingly, after session nine Justin had mentioned that he did not want the sessions to be recorded anymore because of his anxiety. The researcher removed the camera and the first session after the camera was removed, he tied his highest score of the study at 12. After that session his scores decreased and then became consistent from the end of phase B into maintenance phase. During the first session with no camera, session 10, multiple limits had to be set, which was a first for Justin. This provides evidence based on Landreth's (2012) suggestion that firsts in play therapy sessions provide indication of progress. The two observations after session 10 and 11 were higher than normal, but then stabilized and alternated between zero and one until the end of the study. This provides evidence that Justin was might have been holding back in session because of the camera and then felt free to make progress once it was removed. An additional finding is that Justin's results support that CCPT could be an effective intervention for minoritized children. Justin had a large effect size from phase A to phase B and from phase B to maintenance, with a large to very large effect size from phase A to phase B indicating that the 16 sessions of CCPT had a positive impact and a decrease in his externalized behaviors.

Ernie

Ernie's results showed the intervention showed a moderate effect from phase A to phase B, a large effect from phase B to maintenance phase, and a large to very large effect from phase A to maintenance phase. These results provide evidence that the intervention had a positive impact and a decrease in externalized behaviors. Ernie had a consistent baseline established through his 11 observations in phase A, which provided an opportunity for more robust results.

Ernie's progress through the intervention phase showed that after session 10 his observation scores became more consistent, and this carried over into maintenance phase. Ernie had consistent themes in all sessions of safety, security, and protection (Ray, 2011); however, after session 12 they changed in their intensity. In session 12 Ernie played out a specific trauma in detail and after that session his level of intensity of play themes in safety, security, and protection decreased. This provides evidence that Ernie was making progress through treatment by having a first of playing out his trauma (Landreth, 2012) and having a change in their intensity in play with their themes (Ray, 2011). Furthermore, Ernie had themes of from the TPS of repetitive play and play disruption (Myers et al., 2011). Ernie had a moderate effect from phase A to phase B, large effect from phase B to maintenance, and large to very large effect from phase A to maintenance phase, indicating that the 16 sessions of CCPT had a positive impact and decrease in his externalized behaviors.

Kobe

Kobe's results showed the intervention had a negative effect from phase A to phase B; however, it showed a moderate effect from phase B to maintenance and phase A to maintenance. Kobe had multiple scores of zero (four) and multiple scores in the double digits (four) in phase A indicating that there was a lack of consistency during his 13 data points in phase A. When he began phase B, he had a steady increase in scores, providing support from Norton and Norton (1997) that children can have an increase in behaviors before showing improvement in play therapy. After session 11 Kobe had more consistent scores that carried over into the maintenance phase. One potential reason for the large variability in phase A could have been due to Kobe having 13 observations in this phase which could have been too many observations. Additionally, with multiple scores being zero or in the double digits in phase A it made it

difficult to truly assess the impact of the intervention in phase B. Lastly, there might have been a better assessment to track Kobe's symptoms other than the DOF.

Kobe's progress through the intervention phase showed that after session 11 he had more consistent scores and decrease in high scores. His progress did mimic Norton and Norton's (1997) model that a child might have a decrease in progress throughout the play therapy process before they make progress. Additionally, between session one through eight Kobe had relationship-based play and wanted to play with the researcher every session. In session nine Kobe had more aggressive play and five limits had to be set by the researcher to ensure safety of the client and playroom. After this session Kobe's play became more independent and did not engage in relationship-based play as often as before. This provides evidence that Kobe was making progress, as Landreth (2012) suggested that firsts in the playroom indicate progress and Ray (2011) indicated that new themes and change in play might indicate progress in play therapy. Furthermore, Kobe had themes of from the TPS of expression of negative affect (Myers et al., 2011). This was supported by the fact that after session 11 Kobe had consistency in his scores and no longer had high scores. Although Kobe had a negative effect from phase A to phase B, his effect size from phase B to maintenance and from phase A to maintenance and increase in consistency of scores as he progressed through phase B and into maintenance, indicate the 16 sessions of CCPT had a decrease in his externalized behaviors in the classroom.

Cumulative Results

All Participants

The five participants in this study showed progress in their CCPT sessions based on Landreth (2012) and Ray (2011) hypothesis' of change happening when there are firsts in the playroom, when a new theme emerges in session, and when the intensity/frequency of a

predominant theme changes. Change started as early as session seven (Mike) and as late as session 12 (Justin & Ernie). Before participants had firsts, new play themes, or a change in intensity/frequency of a predominant theme, their themes included power, control, revenge, dependency, anxiety, safety, security, protection, and relationship based (Ray, 2011). During sessions seven through 12 each participant had a new theme in sessions such as mastery, relationship, nurturing, and/or a decrease in intensity/frequency in their play (Ray, 2011). In addition to this, participants all had play themes from the TPS that included expression of negative affect, avoidant play, repetitive play, and play disruption (Myers et al., 2011). In addition to first, themes, and change in intensity/frequency of play, there is statistical evidence of the effectiveness of the 16 sessions of CCPT.

The 16 sessions of CCPT were an effective intervention for the participants in this dissertation. Each participant's overlap (Tau-U) score showed a positive effect from the intervention, minus Kobe's phase A to phase B score. All participants had a moderate, large, or large to very large effect when comparing phase B to maintenance phase and a large to very large or small effect when comparing phase A to maintenance phase. These results provide evidence that the intervention was effective for participants. Due to participants progression through play therapy and that children in play therapy can have an increase in symptoms, the researcher proposes that comparing all three phases (phase A to phase B, phase B to maintenance phase, and phase A to maintenance) is crucial to assess the impact of the intervention. When comparing phase A to phase B it is important to remember that progress in play therapy is delayed and this might skew results; however, four of the five participants showed a positive effect from treatment when examining phase A to phase B. All participants in this dissertation had instability in their scores at the beginning of phase B that eventually stabilized later in phase

B and carry overed into maintenance phase. Additionally, comparing phase A to maintenance phase provides a pre-post assessment to assess if there was an impact from the intervention. The results show that these three comparisons (phase A to phase B, phase B to maintenance, and phase A to maintenance) provide strong evidence that the intervention was effective and decreased externalized behaviors of participants.

Previous Research

There are multiple symptoms that children who have been exposed to ACEs can present with. Clarkson Freeman (2014) suggested that children exposed to multiple ACEs are more likely to have externalized behaviors. All participants in this dissertation were exposed to multiple ACEs with the max being 16 and minimum being five. Fuller-Thomson and Lewis (2015) and Jimenez et al. (2017) suggested that these behaviors will come out like ADHD symptoms in the classroom. Additionally, Ray et al. (2020) found that children who have experienced trauma had a higher number of behavioral problems and that the more ACEs exposed to, the more behavioral problems the child had. The participants in this dissertation had their behavioral symptoms present in the classroom that were similar to ADHD symptoms such as disruptive behaviors, ability to stay on task, and impulsivity. As recommended by the CDC (2020) and Ray et al. (2020) a client centered approach was provided to these participants to alleviate symptoms and mitigate long-term negative health outcomes. The researcher utilized CCPT to address the externalized behaviors of participants.

Previous research suggested that CCPT is an effective intervention for children with externalized behaviors (Bratton et al., 2013; Phipps & Post, 2020; Ray, 2009; Ritzi et al., 2017; Robinson et al., 2017; Swank & Smith-Adcock, 2018; Wilson & Ray, 2018). There are few studies that examined the impact of CCPT on externalized behaviors of children exposed to

ACEs. This dissertation provides evidence of CCPT being an effective intervention with children who have been exposed to ACEs and their externalized behaviors, similar previous research from Kot et al. (1998), Schottelkorb et al. (2012), Haas (2017), and Kram (2019). Kot et al. (1998) completed 12 45-minute sessions over three weeks with 11 participants and saw a decrease in overall behavior problems compared to the control group. This dissertation differs in that there were 16 30-minute sessions over eight weeks. Although the length of the sessions and duration of the study differed, the results were similar in that participants had a decrease in their behavioral problems.

In addition to the study from Kot et al. (1998) results from the current dissertation provide support for previous research from Schottelkorb et al. (2012) in that receiving CCPT can decrease trauma related symptoms. Schottelkorb et al. (2012) completed 24 sessions over 12 weeks with refugees who had trauma symptoms. Participants who received CCPT did have a statistically significant decrease in their symptoms. Their study differed from the current one in that this dissertation completed 16 sessions, rather than 24.

This dissertation expands on Haas (2017) pilot-study that utilized SCRD with two children who had experienced four or more ACEs. Haas (2017) completed 24 sessions with the two participants and found that each participant had a decrease in trauma related symptoms, with one participant having a quick improvement and the other having a delayed response. This dissertation differed in that it had five participants, had a longer phase A, shorter phase B, and staggered the start of phase B for participants. The results of this dissertation support Haas' (2017) results in that CCPT was an effective intervention for trauma related symptoms, but additionally that participants might have a delayed response to the intervention.

Lastly, this dissertation built on Kram's (2019) study of implementing 16 CCPT sessions with children who have experienced trauma and measuring the impact using the ADHD subscale on the DOF. They had 34 participants in the study with 17 of them completing the 16 sessions of CCPT and a pre-post DOF completed for each participant. Results from this dissertation showed that there was a large effect for the experimental group. The current dissertation supports these results. This dissertation utilized 16 sessions of CCPT and the ADHD subscales of the DOF for measurement, like Kram (2019). Although this dissertation utilized SCR D and not a large quantitative study, the results provide support to Kram's (2019) study that 16 sessions of CCPT has an impact on externalized behaviors of children who have been exposed to ACEs. Previous research has supported the use of CCPT as an intervention to decrease trauma related externalized behaviors. This dissertation expanded on previous research of CCPT with children who have been exposed to ACEs, specifically while utilizing a SCR D. The current dissertation provides additional evidence that engaging children who have been exposed to ACEs in CCPT can decrease their trauma related externalized behaviors. Although this dissertation adds to the current research, there are limitations to consider when interpreting the results.

Limitations

This dissertation offers additional evidence of CCPT being an effective intervention for children who have been exposed to ACEs; however, there are limitations. One of the limitations of this dissertation was it happened during COVID. This limited the ability of the researcher to recruit participants and have observers from outside the school to complete the DOF. A second limitation of this dissertation is that the use of SCR D means that there is limited generalizability due to $n=1$. However, Krazdin (2019) suggested this can be addressed with SCR D similar to other research designs with independent replication. A third limitation is the number of sessions

completed with participants. Landreth (2012) suggested 25 – 30 sessions and Ray (2011) suggested 35 – 40 sessions of CCPT to view long term impacts with children but this dissertation utilized 16 sessions based on previous research studies using 14 – 16 sessions and showing that 14 – 20 sessions is the minimum amount to assess impact (Lin & Bratton, 2015; Pester et al., 2019; Ray, 2011; Ray et al., 2015). This could have potentially distorted the results due to participants not getting the recommended number of sessions. A fourth limitation was calculating overlap and effect size since there is a lack of consensus on the best method for its calculation (Brossart et al., 2018; Lenz, 2013; Pester et al., 2019). The researcher addressed this by using Tau-U which has been theorized to be the most robust method (Brossart et al., 2018).

A fifth limitation was that the research did not follow all recommendations from What Works Clearinghouse on best practices for SCRD (Maggin et al., 2013). First, the researcher did not have participants who started phase B (intervention) show progress before the next participant started phase B. Although this is a limitation, this is difficult to implement in CCPT due to participants not showing progress right away; however, this was a threat to internal validity. Second, the researcher did not have 20% of the observations completed by a second observer to ensure inter-rater reliability (IRR) was consistent throughout the study. The researcher had observers complete practice observations before the study started and had an IRR with the researcher of .87 and with each other of .90.

There were additional limitations with the DOF. A sixth limitation was that there were no control participants when completing the DOF, as recommended by the developers (McConaughy & Achenbach, 2009). Although this was a limitation, the researcher blinded the observers to which phase the participants were in. With the use of staggering, this assisted in ensuring that the observers were blinded to participants place in the study. A seventh limitation

was that the researcher had decided to use individual observations for participants scores, rather than a weekly average. This was decided due to the limited time frame of the study and the unique aspects of SCRD statistical analysis that examines level (mean) of each participant across phases. Although these limitations exist, the researcher addressed each limitation before or during the study to ensure best practices were maintained. Additionally, even though there are limitations, this dissertation was one of the most robust SCRD that examined the efficacy of CCPT with children who have been exposed to ACEs.

Implications

This dissertation provides multiple implications for future research. CCPT is one of the most researched, utilized, and taught forms of play therapy in the counseling field (Lambert et al., 2007; Lin & Bratton, 2015; Ray et al., 2015; Yee et al., 2019). Although CCPT is widely used and accepted as one of the most appropriate forms of play therapy, there has been a lack of research of its efficacy with children who have been exposed to ACEs (Haas, 2017; Humble et al., 2019; Kram, 2019; Parker et al., 2021). This dissertation provides evidence of CCPT's efficacy when working with children who have been exposed to ACEs that have implications for future research.

With there being a limited number of SCRD studies on the efficacy of CCPT with children who have been exposed to ACEs, this dissertation attempted to follow the What Works Clearinghouse suggestions for best practices with SCRD (Maggin et al., 2013); however, it did miss some of the suggestions. Future research should attempt to have 20% of observations have interrater agreement between co-observers. Additionally, future research utilizing SCRD should set a goal of having at least six participants to have two legs of the study, with a staggered start for each participant to increase internal reliability. Although the What Works Clearinghouse

(Maggin et al., 2013) suggested at least five data points per phase, future research should have at least seven data points in the baseline to ensure a stable baseline. Participants in this dissertation who have seven or more observations in phase A had more robust results. Future research should include 24 sessions of CCPT, rather than 16. Even though these results provide evidence of 16 CCPT sessions being effective, 24 sessions could have provided greater results for the participants. Lastly, future research will benefit from a decrease in social distancing measures from COVID that will allow for an increase in participants, outside observers, and more flexibility in future SCRD with children who have been exposed to ACEs.

Additionally, future research should focus on large quantitative studies. Future studies should include experimental and control groups with a large sample size. Furthermore, future research could benefit from building off Schottelkorb et al. (2012) and have CCPT group, trauma-focused CBT (or any other trauma focused treatment), and a control group to examine the differences between treatment modalities. Lastly, follow-up data from large quantitative studies would be beneficial to understand the long-term impact of CCPT with children who have been exposed to ACEs and if there is a decrease in negative health outcomes as they age.

Conclusion

ACEs can lead to negative health outcomes for children as they grow older and transition into adulthood (CDC, 2016; Hughes et al., 2017). According to the CDC (2016), 26% of adults had at least one ACE, 16% had two, 9.5% had three, and 12.5% had four or more. The more ACEs someone is exposed to, the more likely they are to have negative health outcomes (Hughes et al., 2017). The CDC (2020) recommended that children who have been exposed to ACEs get early, victim-focused treatment to mitigate the long-term negative health outcomes. There have been multiple models proposed to assist children who have been exposed to ACEs, such as child-

centered play therapy, trauma-focused cognitive behavioral therapy, trauma-focused integrative play therapy, and theraplay (Booth & Winstead, 2016; Gil, 2012; Lenz & Hollenbaugh, 2015; Ray et al., 2020). Although there have been multiple models proposed, there is a lack of research on their efficacy.

CCPT has long been considered one of the most appropriate play therapy modalities to work with children (Landreth, 2012; Lin & Bratton, 2015; Ray, 2011; Ray et al., 2015). It has been shown to be effective in multiple areas for children, such as disruptive behaviors, externalized behaviors, and impulsivity (Lin & Bratton, 2015; Post et al., 2019; Ray et al., 2015); however, there has been a lack of research of CCPT with children who have been exposed to ACEs (Haas, 2017; Humble et al., 2019; Kram, 2019; Parker et al., 2021).

This dissertation utilized a SCRD to examine the impact that 16 CCPT sessions on externalized behaviors with children who have been exposed to ACEs. The current dissertation utilized a A-B with maintenance SCRD with five participants in K-2nd grade at a school for children who have experienced trauma. The results showed that 16 sessions of CCPT increased consistency in their scores and decreased participants externalized behaviors in the classroom during the intervention and after the intervention with a stabilizing carry over effect. This dissertation provides evidence that CCPT is an effective form of treatment for children who have been exposed to ACEs. This dissertation contributes to the growing field of research on the efficacy of utilizing CCPT to address trauma symptoms with children who have been exposed to ACEs.

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Appendices

Appendix A: Institutional Review Board Approval



To: Timothy J Schoonover
BELL 4188

From: Douglas J Adams, Chair
IRB Expedited Review

Date: 10/02/2020

Action: **Expedited Approval**

Action Date: 09/28/2020

Protocol #: 2007273417

Study Title: ChildCentered Play Therapys Impact on Externalized Behaviors of Children who Have Experienced Trauma A Single Case Research Design

Expiration Date: 09/27/2021

Last Approval Date:

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

Adverse Events: Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: Kristi L Perryman, Investigator

Appendix B: Recruitment Email

Hello INSERT NAME,

My name is TJ Schoonover, and I am a school counseling intern at your child's school, Hope Academy. It is an exciting experience to be at this school and I love working with all the children!

To introduce myself, I am a PhD Counselor Education and Supervision student at the University of Arkansas. Before attending U of A I was a child and adolescent therapist at a community-based counseling agency in Illinois. I have years of experience working with children and adolescent as a clinical mental health counselor. I am currently being supervised by an Assistant Professor at U of A who is trained in play therapy and school counseling, additionally I am getting on-site supervision from the school counselor, who is copied onto this email. Furthermore, I have training, experience in play therapy, and play therapy for children who have experienced trauma.

A part of my PhD program I must complete a dissertation. I am completing my dissertation on the effects of Child-Centered Play Therapy on behaviors of children who have experienced trauma. I was wondering if you would be interested in your child participating in this study. It would last for eight weeks, where they are getting two 30-40-minute play therapy sessions a week at the school. There would be zero costs for these sessions.

As a part of the study, I will record some of the classroom lessons completed by your child's teacher. These recordings will then be viewed by two research assistants who will complete forms on all the children's behaviors in the class. These videos will be stored on an encrypted external hard drive that only me and the research assistants have access too.

For participating in this study, I would provide you with a \$20 to Amazon at the beginning of the study and \$20 at the end of the study.

I have attached a form that explains the study in detail. I would love to schedule a call, Zoom meeting, or in person meeting with you to discuss this further!

Please let me know when your availability is so we can discuss it!

Thank You!

Appendix C: Informed Consent

Child Centered Play Therapy's Impact on Behaviors:

Principal Investigator:
Timothy "T.J." Schoonover
CNED Doctoral Candidate
tjschoon@uark.edu

Co-Investigator:
Dr. Kristi Perryman
CNED Assistant Professor
klperry@uark.edu

Your child is invited to participate in a research study looking into the effects of Child Centered Play Therapy on externalized behaviors of children who have been exposed to Adverse Childhood Experiences. This study will use a Single-Case Research Design methodology, which means that a baseline with no play therapy will need to be established. The entire study will last for 14 weeks. The first three weeks of the study there will be no play therapy sessions. The next eight-weeks will consist of 30 minute twice a week Child Centered Play Therapy sessions which will happen within your child's school during the school day. Once those eight weeks are over, your child will stop receiving play therapy sessions until the end of the study (three weeks).

There will be four assessments used in this study: The Direct Observation Form, Adverse Childhood Experiences Survey – Expanded, Trauma Symptom Checklist for Young-Children - Screening Form, and the Child-Centered Play Therapy Research Integrity Checklist.

In order to complete the Direct Observation Form, the researchers need to complete multiple classroom observations of your child a week. This will be completed by placing a camera in the classroom five times during a school week and recording 10-minutes of classroom lessons per recording for a total of 50 minutes a week. These videos will be made on a handheld camera and then immediately transferred to an encrypted external hard drive. The videos will then be given to a member of the research team who will complete the Direct Observation Form on your child. The purpose of this is to limit outside workers coming into the school to decrease potential exposure to COVID-19.

The Direct Observation Form assess your child's externalized behaviors in the classroom and focus on, sluggish cognitive tempo, immature/withdrawn, attention problems, intrusive, oppositional, ability to stay on task, attention-deficit/hyperactivity disorder (ADHD). The reason the Direct Observation Form needs to be completed multiple times a week is to get an average of the scores for the entire week, and that will be the score that is used.

The Adverse Childhood Experiences – Expanded is a 25-question survey that assess what, if any, possible traumatic experiences your child has encountered throughout their life. You have already completed this before the school year started. If you consent to your child participating in this study, the researcher will also look over your already completed Adverse Childhood Experiences – Expanded responses.

The Trauma Symptom Checklist for Young-Children - Screening Form is a 20-question survey that you will be asked to complete. It is meant to be completed by the parents of children ages 3 - 12 who have experienced trauma to assess if they are at risk for clinically significant psychological disturbance. You will be asked to complete this assessment twice. Once at the beginning of the study and once at the end of it.

The Child-Centered Play Therapy Research Integrity Checklist is a form that is used for play therapy research. My supervisor and co-investigator, Dr. Kristi Perryman, will watch 5 – 10 minutes of randomly selected videos from each week to ensure that I am using the Child Centered Play Therapy skills correctly. She will be the only one who has assessing the play therapy skills.

The study will begin after meeting with you and getting your consent for your child to participate in the study. For this research study, we are asking for your permission to use your student's data from the assessments and sessions. All information collected will be kept confidential to the extent allowed by law and University policy. There are no risks associated with this study and no benefits for participants.

If at any time during the period where your child is not receiving play therapy it is determined that they need treatment immediately, the researcher will begin sessions early or continue after the study.

In addition to this, the researcher is asking for permission to record the bi-weekly play therapy sessions. The researcher has a secure video camera that is disconnected from the internet and will immediately transfer the videos from the video camera to an encrypted external hard-drive that only him and the co-investigator have access too. The purpose of this is to ensure that the researcher is completing sessions with the appropriate skills.

The researcher will take all recommended steps to limit potential exposure of COVID-19 to your child. I will clean toys after each session, wear a mask, hand sanitize before and after each session, and will make the best attempt at social distancing with your child.

If you do decide to participate in this study, the researcher will provide you a \$20 gift card to Walmart at the beginning of the study and another \$20 gift card to Walmart at the end of the study.

Your decision to participate in this study will have no effect on your students' academic status. If you decide to have your student participate, understand that participation is voluntary and can be discontinued at any point without penalty. You can choose to not have your student participate. The results of the study could be presented at professional meetings or published in journals. At the conclusion of the study, you have the right to request feedback about the results by contacting the Principal Investigator.

If you have any further questions, please contact TJ Schoonover, CNED doctoral candidate at tjschoon@uark.edu.

If you would like to contact the University of Arkansas Research Compliance office to discuss your rights as a participant or concerns with the research process, please contact:

Ro Windwalker, CIP
Institutional Review Board Coordinator
Research Compliance
(479) 575-2208
irb@uark.edu

I have read the above statements and understand my rights as a participant. I understand the purpose of the study and the lack of risks and benefits in my participation. I understand participation is voluntary and can be revoked at any time without consequence. None of my rights have been waived by giving my consent.

Guardians Signature

Date

I have discussed this study with my parent/guardian, and I agree to participate. I understand that even if they agree, it's okay if I choose not to participate or change my mind about participating later.

Student Signature

Date